

# THE MEANING OF HIROSHIMA NAGASAKI

N. D. JAYAPRAKASH

DELHI SCIENCE FORUM  
KERALA SHASTRA SAHITYA PARISHAD

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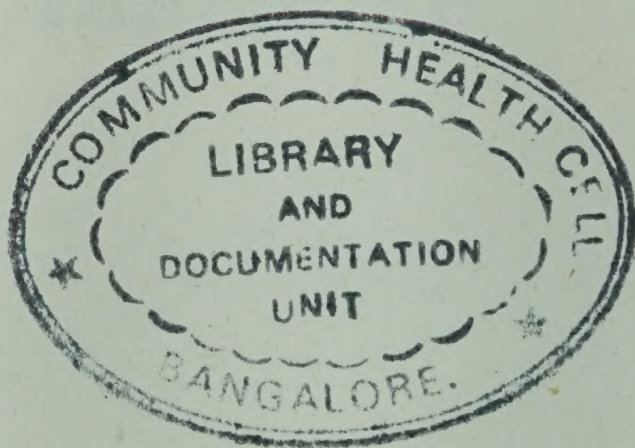
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The ruins of Hiroshima, mid-October, 1945.





Hiroshima, August 7, 1945: Two of those who suffered deep burns from the thermic rays of the explosion lie still, breathing faintly to their death.

Nagasaki about 8 am, August 10, 1945: The bodies of mother and child on the railway platform 900 meters from the hypocentre. The child's face is swollen with deep scars from burning.

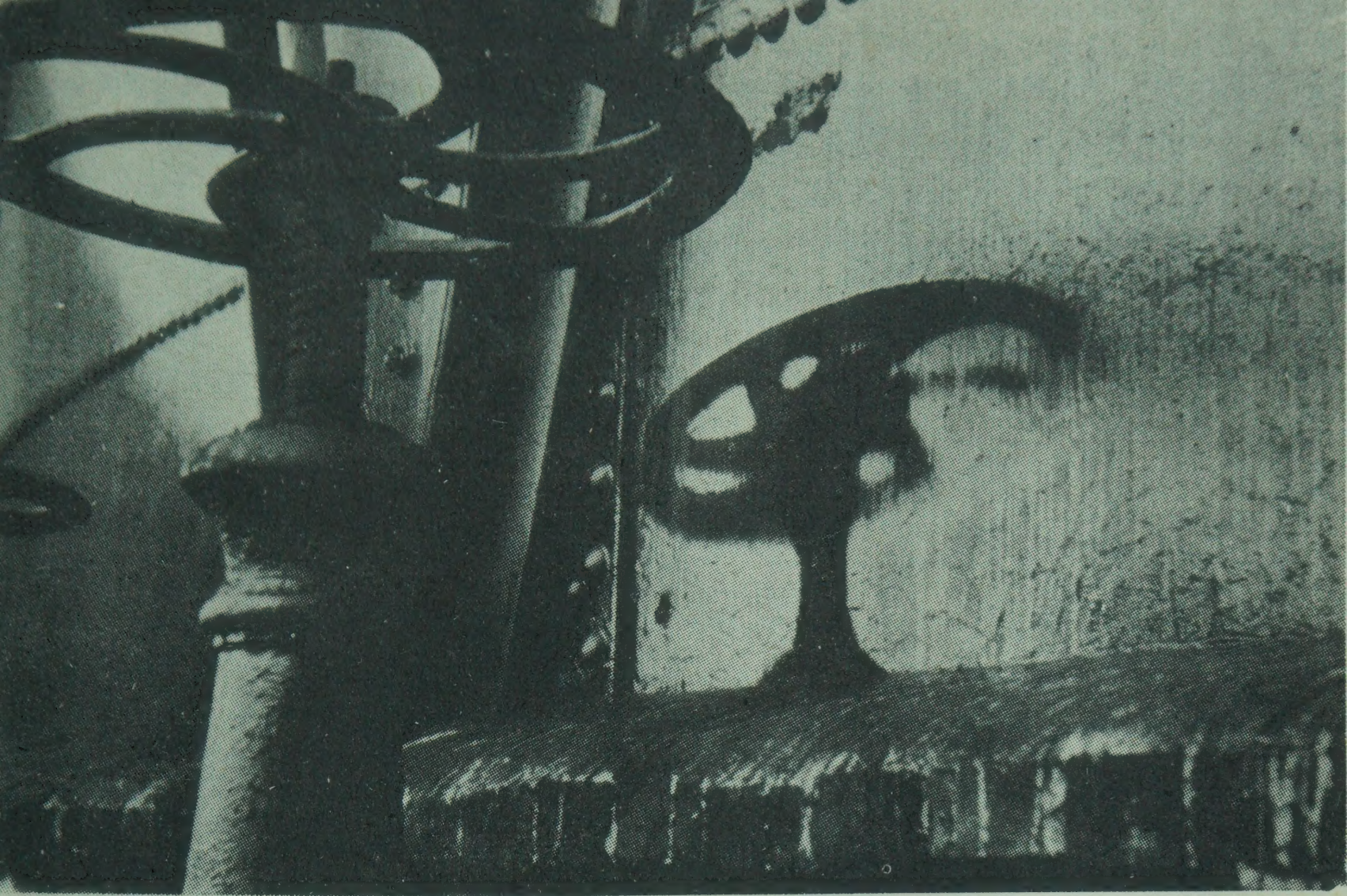




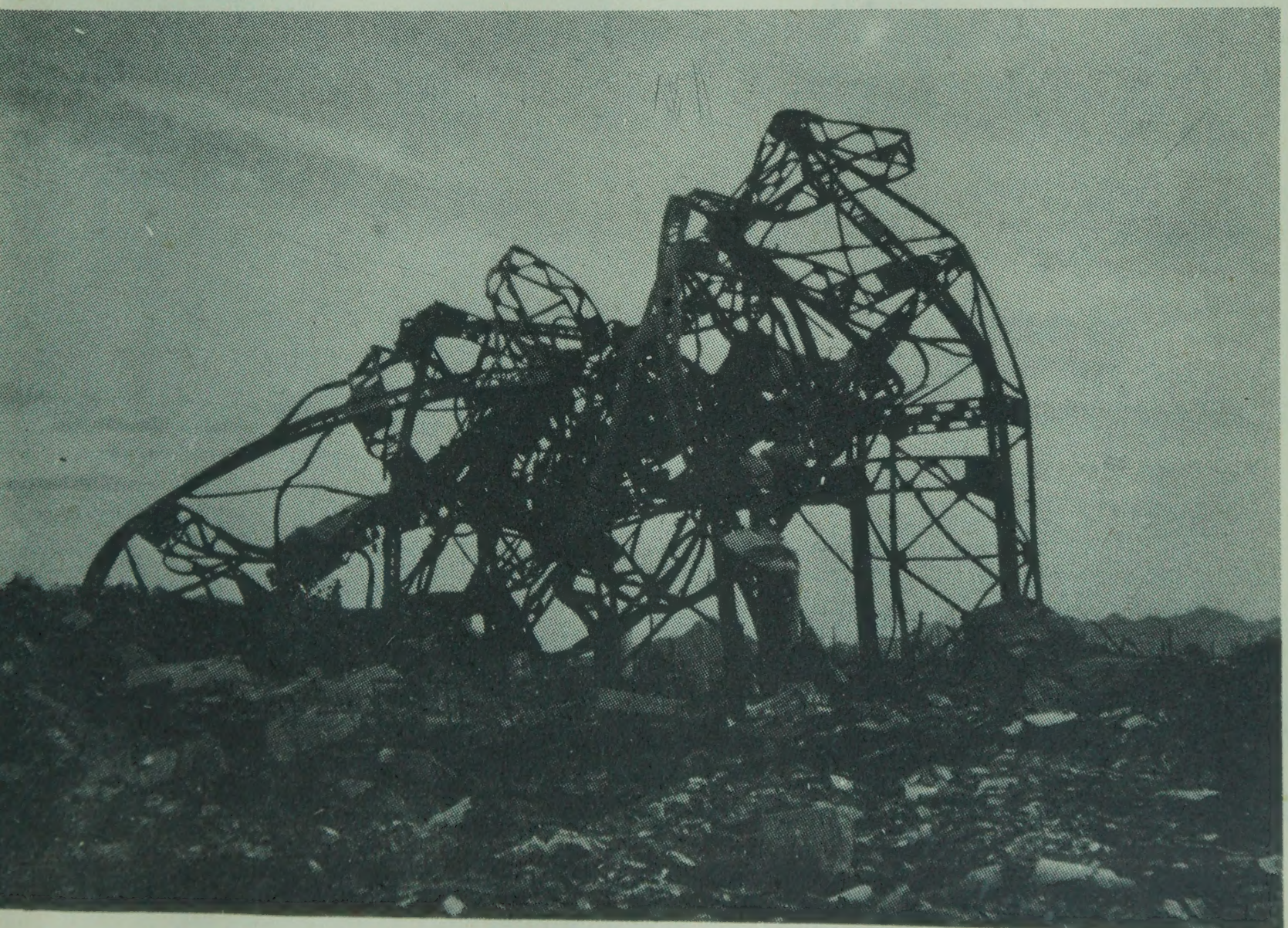
This bronze Buddha was melted by the thermic rays of the explosion. Bronze melts at around 900 degrees Celsius. Hiroshima Peace Museum, Hiroshima.



Nagasaki about 11 am, August 10, 1945: A street car was apparently heading north from the city when the atom bomb exploded. The bodies thrown about near the stone walls are those of passengers killed instantaneously by the blast and the heat. The point lies about 230 meters from the hypocentre.



Hiroshima: Thermic rays imprint the shadow of a handle of a gasometre on a tank at the Hiroshima Gas Company, 2.1 kms from the hypocentre. Hiroshima, August 7, 1945: This was part of a bustling shopping center before the atomic bombing. It is about 500 meters from the hypocentre.



Hiroshima: A cinema theater on a busy street, 850 meters from the hypocentre, crushed out of shape by the blast and the heat.



Hiroshima , August 12, 1945: A mother and her child are brought back to the city from a temporary relief station.



Hiroshima about 8 am, August 7, 1945: "In a water tank by the entrance to the broadcasting station I saw a pile of bodies. Suddenly a terrible sight met me on the street. There stood a petrified body of a woman, with one leg lifted, as though running, her baby clutched in her arms. The memory will never leave me." Painting: Yamagata Yasuko, aged 17 in 1945.

*(One of the thousands of such paintings from the searing image of the blast etched in the minds of survivors)*



Atomic bomb victim Chieko Wantanabe is paralyzed from the waist down. Held by her mother, she reads out an appeal for the elimination of nuclear weapons at the World Conference Against Atomic and Hydrogen bombs, Nagasaki, 1969.

# **THE MEANING OF HIROSHIMA NAGASAKI**

*The Decision To Use Atomic  
Bombs On Japan  
&  
Its Implications For  
Humankind*

**N.D. JAYAPRAKASH**

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Dedicated To The Memory Of  
All Those Who Perished As A Result Of  
The Atomic Bombing Of Hiroshima And Nagasaki  
And To The Cause Of All Those Who Have Suffered  
Or Are Still Suffering From  
The Dreadful Effects Of The Atomic Bombing



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## FOREWORD

The dark era of nuclear weapons was ushered in when, in August 1945, two atomic bombs were dropped on Japan on the orders of Harry S. Truman, the then President of the United States of America. The atomic bombing, which Mahatma Gandhi described as "the most diabolical use of science", resulted in the brutal killing of over 340,000 men, women and children. In fact the outrageous act was committed despite the U.S. Administration being fully aware that Japan was on the verge of surrender—a revelation which necessitated a deeper probe into the motives behind the heinous crime. The objective of the present study was, therefore, to examine the circumstances that compelled the construction of the atomic bomb and to analyse the factors which influenced the decision to use the deadly weapon on Hiroshima and Nagasaki.

Several facts have become evident from the evaluation. In the United States the Manhattan (atom bomb) Project was conceived by some prominent immigrant scientists who had escaped in the 1930s from the fascist onslaught which had then gripped many parts of Europe. These scientists were forced into recommending such a measure following receipt of confidential information that a nuclear weapon project was being contrived by the Nazis as part of their preparations for the war they were secretly planning to launch. The cryptic message turned out to be true for Nazi Germany, which was in league with Fascist Italy and Militarist Japan, soon embarked upon a war of conquest. However, before the Nazis succeeded in perfecting the dreaded weapon, they were defeated by the Allies and forced to surrender. Italy having surrendered earlier, the lone adversary still to capitulate was Japan. But it was known for sure that, unlike Germany, Japan was in no position to pose a nuclear threat. Therefore, many of the leading scientists on the Manhattan Project were of the view that atomic weapons were not necessary to ward off Japan and categorically expressed themselves against the inadvertent use of these weapons. They warned that such a

step, apart from all moral and humanitarian considerations, would jeopardize the chances of achieving international control over the most menacing weapon ever contemplated. But the then U.S. Administration, with its right-wing leadership, chose to ignore the apprehensions expressed by the atomic scientists which unfortunately came true.

On the other hand, it was found that the real reasons for the precipitate use of atomic weapons were totally extraneous to either ending World War-II or saving American lives—the two objectives supposedly for which the atomic bombs were used. In fact evidence shows that the war in the Far-East could have been ended soon after Germany surrendered on May 8, 1945. But the U.S. leadership chose not to do so. By prolonging the war until the atomic bomb was ready for use, the U.S. leadership is not only guilty of mass murder of hundreds of thousands of Japanese, but is squarely responsible for the death of all those American soldiers, sailors, and airmen killed in the war in the Asia-Pacific region at least from the middle of May 1945. Thus, the claim, that the atom bomb was used to shorten the war and save American lives, was nothing but an attempt to conceal the fact that, by the U.S. leadership's decision to prolong the war, many more Japanese and Americans lost their lives.

The sole purpose of perpetrating this crime against humanity, it is now evident, was to demonstrate the power of the latest weapon in the U.S. armoury in order to put the United States in a position to dictate terms to the rest of the world at the end of the war. It was the threatening posture of these right-wing forces of the United States that triggered off the nuclear arms race.

Confronted by this inescapable truth, a concerted move is being made to counter it with fallacious arguments. It is propounded that the responsibility both for the destruction of Hiroshima and Nagasaki, and the unbridled nuclear arms race which followed it, rests with the "practitioners of modern science" and "the techno-ethics which dominates the human civilization". It is true that atomic weapons would not have been created without the application of the latest advances in science and technology. But the accusation that the decision to use it on Japan, the subsequent nuclear arms race, etc., were dictated

by scientific (and not political) considerations is a little too far-fetched. Such charges can only be interpreted as an unabashed attempt to divert attention from relevant issues. Apparently by seeking to denigrate all science and scientists, the intention seems to be to conceal certain deep-rooted socio-political factors which insidiously sanction the misuse of science and technology. In effect these theories, which gloss over the historical fact-sheet relating to the construction and use of atomic weapons, serve no objective other than to obscure the ignominious role of those who were responsible for the heinous crime.

The survivors of the atomic devastation, who are known as *hibakusha*, are most concerned that what happened in Hiroshima and Nagasaki should never be repeated again. Ever since, they have been in the forefront of a movement which is waging a relentless struggle against omnicide and for the elimination of all nuclear weapons—an issue which, strangely enough, successive post-war Japanese governments have remained evasive about. It may be hard to believe, but the fact is that now the Japanese Government actually subscribes to the doctrine of nuclear deterrence.

It is also interesting to note that many of those who strongly support the arms race are claiming that they are doing so in order to protect world peace. Whether the best way to secure peace is by furthering the arms race or through disarmament is a matter which may be explored in detail in a separate study. But at present we are fairly convinced that like the *hibakusha*, it is the bounden duty of peace loving people of all countries to strengthen the world-wide peace movement, to arrest the galloping arms race, and to incessantly strive for diverting precious resources, both human and material, from armaments to vital human needs. It is, therefore, in this direction that stringent efforts have to be made to channelize humanity's collective wisdom. This, we believe, is the real challenge confronting humankind today.

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# 1

## HIROSHIMA—NAGASAKI: A TRAUMATIC EXPERIENCE\*

The names Hiroshima and Nagasaki are known around the world—yet most people remain ignorant of the reality and meaning of atomic destruction. The photographs—some of them reproduced here—are a graphic reminder of the biological and physical destruction wrought in a few seconds by two **tiny nuclear weapons—LITTLE BOY and FAT MAN—**\*\* dropped on the two cities on August 6 and 9, 1945, respectively at the behest of the right-wing leadership heading the U.S. Administration at that time.

However, neither the whole picture of the killed and wounded at the initial stage of casualty nor accurate figures of those suffering from atomic bomb illness have been obtained till today. The following factors made it extremely difficult to grasp the actual conditions at that time: (1) the extensive destruction of local society; (2) disorganisation of war mobilisation; (3) restriction on investigating atomic bomb casualties imposed during the United States' occupation of Japan; and (4) the indifferent attitude of successive post-war Japanese governments. Notwithstanding these disadvantages, attempts were repeatedly made soon after the explosion and continue to be made to determine the number of those killed and wounded. Given below is a brief summary of the outcome of these efforts.

### 1.1 DEATH AND DESTRUCTION

As a result of the atomic bombing, the two cities, dense with people and buildings, were instantaneously destroyed and irradiated. Over **92** per cent of the **76,000** buildings in Hiroshima, which lay within a radius of four kilometres from the hypocentre

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\* see Notes

(the spot on the ground directly below the explosion) were blasted, burned and demolished. In Nagasaki **36** per cent of the **51,000** buildings were similarly destroyed. Glass windows up to 27 kilometres and 19 kilometres away from the hypocentres in Hiroshima and Nagasaki respectively were found shattered.

Of the estimated **350,000** people in Hiroshima on August 6, 1945, over **200,000** perished by October 1950. In Nagasaki of the estimated **270,000** people in the city on August 9, 1945, some **140,000** met a similar fate. Death and destruction were indiscriminate in the target areas: neither children nor women; young nor the old; civilians nor soldiers; residents nor visitors; houses nor factories; hospitals nor schools were spared. Over **90** per cent of all victims were civilians. Even worse, the atomic bombing has continued to take its toll well into the **1990s**.

The death toll also included many foreigners: at least **40** to **50** per cent of the foreigners present in the two cities—**Allied prisoners of war** (American, Australian, British, and Dutch soldiers numbering over **1000**), **American citizens** of Japanese descent (numbering over **3000**), conscripted **Korean workers** (numbering over **70,000**), and other non-combatant foreigners (students, traders, clergy, and consular personnel from several Asian and European countries)—too met a dreadful fate.

Besides these primary victims, there are secondary A-bomb victims who were affected by residual radiation. These are the early entrants looking for friends and relatives, and the relief teams—in the neighbourhood of **78,000** and **11,000** respectively. There are also countless victims of radioactive fallout or "ashes of death" that descended on a wide area of the two cities and its suburbs within hours of the explosions.

### ***Unique Experience:***

Atomic destruction is unique in three respects :

- a) The massive immediate devastation and death;
- b) The indiscriminate and instantaneous destruction of all aspects of social and community life;
- c) The complex and long-term social and psychological consequences of a "society laid to waste".

The destruction from the explosions (which were air bursts at roughly **580** metres and **500** metres above ground respectively) was caused by heat rays (thermal radiation), blast wave (expansion of air), and nuclear radiation (mainly from emission of neutrons and gamma rays due to nuclear fission). Approximately **35** per cent of the total energy generated by the bombs was transmitted in the form of thermal radiation, **50** per cent in the form of blast and **15** per cent in the form of nuclear radiation (initial radiation 5%, residual radiation 10%).

In general, most of the A-bomb casualties were due to the combined effects of burn, blast, and radiation injuries. However, in the initial stages, it is estimated that about **60** per cent of the total deaths were due to burning (heat flash and fires), about **20** per cent due to physical injuries from falling structures and flying debris (as a result of blast effects), and **20** per cent due to nuclear radiation. In the latter stages, deaths and diseases arose solely due to the delayed effects of nuclear radiation.

## **1.2 EFFECTS OF THERMAL RADIATION**

The atomic bomb as an injurious heat source is characterised by the action of intensive heat rays within an extremely short period of time. The first manifestation after each bomb was detonated was a blinding flash of light, the thermal radiation fading away in about three seconds. At the point of detonation, the temperature rose to several million degree Celsius for a fraction of a second (while that of the 'conventional' bomb was about 5,000 degrees Celsius). The high heat converted the contents and casing of the bomb and the air around it into a fire ball of hot compressed gases.

Within one second the rapidly expanding fireball attained its maximum diameter of about 200 metres, while its surface temperature fluctuated between 300,000°C and 1,800°C (averaging about 7,500°C for that duration). Ten seconds later the fireball, which at the beginning ascended at the rate of 100 metres per second, disappeared and was soon replaced by a gigantic mushroom—shaped cloud. The diameter of the mushroom cloud had expanded from 200 to about 3,000 metres, while it attained

its maximum height of about 12,000 metres in under seven minutes.

The thermal energy released by the Hiroshima and Nagasaki bombs were approximately  $4.5 \times 10^{12}$  and  $7.7 \times 10^{12}$  calories respectively. This constituted about 35 per cent of the total energy of the explosions. As a result of the enormous heat generated within a short period, the temperature at the hypocentres in the two cities immediately after the explosions reached **3,000 C to 4,000 degrees Celsius**. (For comparison, the melting point of an iron bar is approximately **1,500°C**). The heat rapidly dissipated with increasing distance from the hypocentres.

Thermal radiation energy per unit area attenuates with the burst point. There are two attenuations : one is inversely proportional to the square of the distance; the other is brought about by absorption and scattering in thermal radiation's passage through the air (the visibility factor due to moisture and dust). The weather was fine at the time of the bombing both in Hiroshima and Nagasaki. Thus, at distances of **1 km and 1.5 kms** from the hypocentres in Hiroshima and Nagasaki respectively, the temperature was in the region of 600 degrees Celsius and the intensity of the heat flash was estimated at 20 calories per square centimetre per 0.3 second. People unshielded within this distance suffered severe third degree burns and died within a week; those directly below the blast were, of course, incinerated. (It may be noted that white paper burns at  $10 \text{ cal/cm}^2/\text{sec}$  and black paper at  $3 \text{ cal/cm}^2/\text{sec}$ )\*. All unshielded persons within about 3.5 kms and 4 kms of the hypocentres of the two cities were probably burnt to some degree.

*\*(The Sun's radiant heat energy on a  $1 \text{ cm}^2$  vertically oriented area of the spherical segment of outer space for a duration of 0.3 sec is approximately  $0.01 \text{ cal/cm}^2$ . The energy used to heat the Earth's atmosphere and surface is  $0.007 \text{ cal/cm}^2$ —that is about 66% of the  $0.01 \text{ cal/cm}^2$ . With this knowledge one can have some realization of the tremendous intensity of heat generated by the atomic bomb)*

Under certain conditions spontaneous combustion and charring of buildings, railroad ties, fences, trees, and other materials occurred, both due to primary ignition from heat rays and secondary ignition from burning structures, even up to 3 kms of the hypocentres.

### 1.3 EFFECTS OF THE BLAST

Immediately after the thermal wave came the blast wave. It was the tremendous pressure build-up in the vaporized materials of the bombs at the instant of explosion that gave rise to the blast wave. The blast consisted of two phases—compression (positive pressure phase) and suction (negative pressure phase). The duration of the compression phase is estimated to have been approximately one second, which is a hundred times that of a 'conventional' bomb. In the positive pressure phase air moved with great velocity in the direction of propagation of the blast, i.e. away from the point of burst. In the negative phase the wind velocity was much less in magnitude and was directed towards the point of burst. The velocity of the shock front as well as the wind velocity were determined by the peak pressure which in its turn depended upon the energy of the explosion.

At the point of detonation the pressure rose to several hundred thousand times the atmospheric pressure for a fraction of a second. Approximately 50 per cent of the latent energy of the bombs was transmitted in the form of blast. The radius of blast destruction was proportional to the cube root of the explosion energy. A theoretical estimate indicates that in Nagasaki at the hypocentre the maximum blast pressure was **35** metric tons/sq. metre and the maximum wind velocity was 440 metres/second (i.e. over **1500** kms per hour). While at 3 kms from the hypocentre the pressure was still 1.3 tons/sq. metre and the wind velocity was 30 metres/second (i.e. over **100** kms per hour). Theoretical calculations also show that the explosion height of 580 metres, the height at which the Hiroshima bomb was detonated, was the optimum height for a given explosive yield (in this case 12.5 kilotons) that maximizes the destructive power of the blast. As a result of the blast, all wooden structures within 2 kms of the hypocentres were obliterated. Although concrete buildings near the hypocentres were severely damaged, those within the rest of the 2 kms range withstood the pressure, but their interiors were ravaged by fire. The damage to the structures depended on their strength and partly on their shape, number of openings, and other factors.

Injuries to the human body caused by the blast can be divided into primary injuries caused directly by the blast and secondary injuries caused due to indirect effects. Primary injury occurred mainly in the vicinity of the hypocentres. The blasts, by generating very high pressure, directly caused many instantaneous deaths. But because the human body could withstand quite high pressures (about 200 kilo pascals (kpa) or about 2 atmospheres i.e. **2 kgs/cm<sup>2</sup>**) most blast deaths occurred due to indirect effects. (For example, an over pressure of 21 kpa would not kill a person, but the accompanying wind of **150 kms** per hour is sufficient to kill people in the open by causing fatal collisions between human beings and nearby objects.) Thus, the majority of those exposed, who had escaped instant or early death, suffered from secondary injuries—bruises, lacerations, cut wounds and fractures from collapse of buildings, from being blown into objects, and from falling debris. Wounds from glass splinters were frequent and led to multiple small lacerations or to wounds with embedded splinters. Although these multiple wounds themselves were not fatal, with the fall in individual resistance following exposure to radiation, the wounds became infected and frequently turned gangrenous.

#### **1.4 EXTENT OF DEVASTATION**

The damage in Hiroshima and Nagasaki was caused by a combination of heat rays, blasts, and fires. The sum total of these effects led to the devastating conflagration that engulfed the two cities.

In Hiroshima the conflagration broke out at 8.45 am, half an hour after the explosion. With the outbreak of conflagration, the air in the area became heated, causing a rapid rush of air upward, with cold air flowing in from all directions. This phenomenon called a 'fire storm' soon started to blow and reached a velocity of 18 metres per second (i.e. **65 kms** per hour) two to three hours later. From 11 am to 3 pm a violent whirlwind traveled from the city centre to the northern part; by evening the wind had calmed down, and within a radius of **2 kms** from the hypocentre, the city was completely destroyed by the fire storm. In Nagasaki fires broke out at several locations approximately 90

minutes after the explosion. These fires triggered wide-spread conflagration and a wide area had been burnt down by 8.30 pm till which time the fire lasted. The area completely destroyed extended upto **2.5** kms towards the south of the hypocentre.

The total area demolished by the blast and the fire in Hiroshima and Nagasaki were **13** sq. kms and **6.7** sq. kms respectively. The energy of the Nagasaki A-bomb exceeded that of the Hiroshima one, but the area of destruction in Hiroshima was greater because of several factors.

The city of Hiroshima is built on a river delta walled off by hills on three sides. Since the atomic explosion here occurred at the heart of this flat city, the damage extended throughout the city unrelated to direction (the hills compounded the blast effect by containing the shock wave). Whereas the city of Nagasaki is built around two river basins separated by a hill, the height of which on the average was about 200 metres above sea level. The atomic explosion here occurred on one side of the hill, which partly shielded the other side from heat rays and the blast. If this bomb had exploded right above the hill the extent of destruction in Nagasaki would have been far greater. The firestorm in Nagasaki was also not as intense due to the fact that the direction of the wind was towards areas where there were fewer buildings. Another factor was of course that the size, number and density of both the population and the buildings in Nagasaki were relatively less as compared to Hiroshima. *(Nagasaki was in fact a last minute substitute for Kyoto, the former capital of Japan with a population of over 1,000,000. Kyoto was struck off the list of potential targets after a section of officials within the U.S. Administration staunchly opposed its inclusion. Had Kyoto been the target, the casualty figures would have shot up at least four fold. See also Section 2.14.1)*

### **1.4.1 Uselessness Of Civil Defence Systems**

The devastation was compounded by the fact that the civil defence and first-aid systems for dealing with air raids and other emergencies were destroyed or crippled, and were thus unable to give the aid urgently needed by the seriously injured. Both the cities had special civil police and civil defence systems, and

government conscripted workers teams, as well as many well-trained local neighbourhood associations and relief, first-aid, and sanitation teams along with emergency hospitals and refuge shelters. Both cities also had emergency evacuation plans; emergency shelters were equipped with food, clothing and medical supplies; and routes for evacuation by railway, street cars and trucks had been established. **The atom bomb damages, however, far exceeded all levels of preparedness; even those agencies which survived the holocaust were rendered virtually useless.** For example, the fire-fighting facilities were almost totally destroyed in Hiroshima and Nagasaki. Even where both facilities and firemen escaped disaster, blocked roads interfered with fire-fighting activity. Similarly most of the medical facilities in the two cities were destroyed and over **90** per cent of the medical personnel were either killed or disabled. Thus, a great many of the injured could get but little attention. Moreover, persons who sought protection in air-raid shelters and concrete buildings were burned by hot gases and dust that entered them. Burns were exceptionally frequent and seem to have been the cause of the maximum number of deaths. Most of those with serious burn injuries who managed to escape the blazing cities could not get treatment at the evacuation shelters and died unattended. Countless other A-bomb victims huddled in bombed-out buildings, unable to move due to serious injuries, only to die in the inferno that followed the blast.

## 1.5 EFFECTS OF IONIZING RADIATION

*(The nature of nuclear radiation is described in Section 3. This subsection deals mainly with its effects on biological systems)*

The background radiation from natural sources (from cosmic rays etc.) normally received by human beings (measured in "rad- units") is **0.1** rad (radiation added dose) per year.\* This is an

\* (1 rad = energy absorption of 100 ergs per gram of tissue or 0.01 Joule/kg. Joule is a unit of work or energy, work done by a force of one newton when its point of application moves one metre in the direction of action of the force. Newton is a unit of force, force that, acting for one second on a mass of one kilogram, gives it a velocity of one metre per second.)

extremely mild dose of radiation and therefore does not have any immediate noticeable harmful effect on the human body. But people receiving **600** rads (lethal dose) or more usually die; half of those who receive **350** rads (semi-lethal dose) also die. A considerable amount of radiation was released by the atomic bombs—a crucial difference from 'conventional' bombs. At the hypocentre in Hiroshima over **10,000** rads of gamma rays and over **14,000** rads of neutrons were released, while in Nagasaki the figures were **25,000** rads and **4,000** rads respectively. Those who were within **1** km of the hypocentre in Hiroshima and within **1.2** kms in Nagasaki received at least a semi-lethal dose.

### **1.5.1 Initial and Residual Radiation**

The radiation released by the air burst of the atom bombs can be divided into two categories: initial radiation, which is emitted within one minute of the explosion; and residual radiation, which is emitted later than one minute of the explosion.

Initial radiation consisted of alpha rays, beta rays, gamma rays and neutrons. Alpha particles (each consisting of 2 protons and 2 neutrons) were released from uranium and plutonium, which escaped fission, and beta particles (identical to an electron) emerged from fission products. Gamma rays (electromagnetic energy) were produced during nuclear fission of uranium and plutonium, and when neutrons released by fission were absorbed by surrounding atomic nuclei, and from a variety of products of nuclear fission. But it was the initial radiation from gamma rays and neutrons that reached the ground and had a considerable effect on human beings, animals and plants. The devastated structures on the ground that absorbed these particles subsequently became radioactive—a process which is called induced radioactivity. The substances on the ground, so activated, continue to emit radiation for some time; this is called residual radioactivity. Those who entered these cities and went within **1** km of the hypocentres within **100** hours of the bombing received a considerable dose of residual radiation. Radioactive fallout was the other important source of residual radiation.

**Fallout:**

Minute particles of nuclear-fission products of uranium and plutonium, isotopes that had escaped fission, and weapon residues activated by neutrons constituted the fallout. These minute particles, or "ashes of death" as they came to be called, were blown high into the air and into the atmosphere at the time of the explosion and then gradually descended to the ground or came down concentrated on a specific area along with the "black rain". *(Rain resulting from the condensation of moisture on black clouds of minute particles of carbon, ash and dust, which were blown up into the air during the conflagration, became known as "black rain")*.

In Hiroshima, between 9 am and 4 pm on August 6, "black rain" fell over some parts of the city and nearby areas in the countryside downwind. A large quantity of fish were found dead in the river where "black rain" poured. Diarrhoea was noted among the cattle that ate grass contaminated by the sticky rain. Many residents in the area where the rain fell also complained of diarrhoea. The area where dusty ash fell extended several kilometres outside the rainy area. Light, heavy, small and large paper materials were found scattered throughout a distance of 30 kilometres to the north of the city. Similarly in Nagasaki about twenty minutes after the explosion, which had taken place around 11 am on August 9, "black rain" fell in the other half of the city that had escaped destruction. Thus, a large number of people were exposed to the hazards of nuclear fallout.

In the case of fallout, apart from the external hazard which resulted from exposure to radiation from radioactive sources outside the body, there was the internal hazard of radiation. The internal hazard was due to absorption into the body of radioactive substances contained in the fallout. Radioactive substances enter the body in the following ways:

- (i) inhalation — entry through the process of breathing;
- (ii) ingestion — entry through contaminated food-stuffs and drinks
- (iii) injection — entry through wounds and abrasions, or direct absorption through the skin.

### 1.5.2 Biological Effects

Nuclear radiation has a drastic impact on biological systems and its effects depend upon the age and general health condition of the exposed individual; the type of radiation (alpha rays, beta rays, gamma rays, or neutrons); the portion of the body exposed (whole body or parts of it); the type of exposure (external or internal); the duration of the exposure (acute or prolonged); and the total dose. The mechanism of damage caused to living cells by radiation is still largely and basically obscure. The first step in a series of complex, physical, chemical and bio-chemical events is the ionization of molecules composing the material of the cells. **Radiation harms by ionizing—that is altering the electrical charge of—the atoms and molecules in the cells of living matter.** The act of ionization of a molecule consists in the knocking out, under the impact of the incident radiation, of one or more electrons present in the molecule. A dose of radiation produces millions of ion-pairs in every gram of exposed material and, as a result, the molecules in it undergo disruption. **In the process the cells, which are the smallest unit of structure of all living organisms, are either partly damaged or destroyed altogether.** Furthermore the radiation may effect the rate of cell division: the cells may be rendered incapable of further division, division may be slowed down, or conversely, tissues in which cell division normally ceases in the adult may escape their normal biological control and cell division may continue leading to cancerous growths.

The biological effects of ionizing radiation may be subdivided into *somatic effects* (both immediate and delayed effects which are recognizable within the lifespan of the irradiated person) and *genetic effects*—an effect that is likely to manifest more or less in the remote offspring.

#### **Somatic Effects:**

The sensitivity of human tissues to ionizing radiation varies widely. The most sensitive are blood-forming organs and germinal tissues; the least sensitive are the brain and muscles. Also there is considerable biological variability as regards sensitiveness to radiation: foetal subjects, children and young

people, and under-nourished and sick people are more radiation-sensitive than healthy adults. Somatic effects broadly fall under two categories: early effects and late or delayed effects. The early effects appear within weeks to months of exposure whereas the late effects may take from years to decades to become manifest.

In Hiroshima and Nagasaki exposure to high-doses of ionizing radiation damaged lymphatic tissues, germinal tissues, bone marrow, gastro-intestinal tract, skin, and other organs due to which many thousands were afflicted with radiation sickness. Radiation sickness involves nausea, hemorrhagic vomiting, diarrhoea, loss of hair, proneness to fatal infection and so on. The severely exposed died within two weeks; the less severely exposed died before the end of the 6th or 8th week after exposure. Others eventually recovered though not fully. Some recent studies seem to indicate that even in the case of a very weak dose some irreversible damage is always done to the individual. In certain other cases of exposure there may be delayed effects in addition to early effects.

Many more victims subsequently suffered and/or died from the late effects of radiation. The most important of the delayed effects are cancer (malignant disorderly growth of cells), fatal blood disease leukemia (excess production of white blood cells invariably resulting in death), formation of cataract, premature ageing, etc. The first case of atomic bomb cataract was discovered in 1948, and this was followed by many reports of this condition in both cities. The latent period of leukemia was six years. Its incidence among those exposed to the atomic bombing reached its peak between 1950 and 1953, and has maintained its high incidence ever since. Slightly after the peak of leukemia a general trend in the increase of various cancers (thyroid, breast, lung and salivary gland cancer) was found among those exposed. Other types of cancers detected later on include cancers of the stomach and digestive tract, liver, urinary tract, reproductive organ, bone, etc. Moreover, exposure to atomic bomb radiation induced chromosome aberrations in the somatic cells. But the implication of this aberration for the health of the exposed is still unclear, and no correlation to any specific diseases or symptoms has yet been found.

A 1960 survey found that 2,310 *hibakusha* (atomic bomb survivors) in Hiroshima and 1,562 in Nagasaki were exposed to radiation in utero. Congenial malformation such as microcephaly (a condition in which the head is abnormally small) and delayed growth and development of head circumference, stature and body weight were observed among many in this group. Serious cases of microcephaly were accompanied by mental retardation. Microcephaly was exceptionally marked among those exposed within the first 18 weeks of gestation and its severity was related to the degree of exposure.

### ***Genetic Effects:***

The genetic effects of radiation arise through damage to those intra-cellular bodies in the germ cells which are the material basis of heredity. Genetic effects, therefore, occur only if the radiation reaches the germ cells in the reproductive organs (sperm, ova, and their precursor cells). With high radiation doses the germ cells die and lose their ability to produce either sperms or ovum, and thus brings about sterility with no genetic effects. Thus, it is possible that genetic effects may appear only if damaged germ cells retain their normal reproductive capacity. For detecting genetic effects of atomic radiation, the following items were investigated as indices: spontaneous abortion and still births due to lethal mutations, infantile deaths resulting from harmful effects during the foetal stage, decrease in birth weight, increased frequency of congenial malformations among children born to exposed parents, etc.

However, genetic surveys undertaken to date have yielded no positive evidence for a genetic hazard due to atomic bomb radiation. On the other hand the genetic effect of radiation has been clearly demonstrated in the case of plants and animals with small life cycles. Thus, its effects on human beings, whose life cycles are relatively longer, is likely to become evident only in the coming generations. Also it is possible that genetic effects do not show up so distinctly in human beings, since they have fewer pregnancies as well as fewer foetuses per pregnancy than do animals on whom tests have been conducted. In other words,

although forty-five years—or three generations—will have soon passed since the atomic attack, it seems to be too short a period to reach any definite conclusions regarding the genetic effects of ionizing radiation.

## 1.6 FATE OF THE *HIBAKUSHA*

The damages of 'conventional' war are generally temporary or one time affairs; atom bomb damages continue to haunt not only individuals initially assaulted by its awesome power but also succeeding generations. Survivors who had been evacuated, or who for other reasons had left the cities, in addition to losing family members and friends, were also deprived of work and livelihood. Apart from these miseries, the injuries sustained by them were a big handicap in recovering from the traumatic experience.

Among the atomic bomb survivors, mechanical injuries varied in degree, from minor scratches to severe lacerations and compound fractures. Owing to the paucity of medical care and due to exposure to ionizing radiation, even minor lacerations and abrasions that ordinarily would have healed promptly often gave rise to severe infection. Scars caused by flash burns altered to become keloids—i.e. a kind of protrusion from the skin surface accompanied by stinging pain and itching—after more than three to four months. Even when keloid scars had been surgically removed, the keloid tissue, in many cases, tended to grow back again. Among proximally exposed survivors ruptured eardrums were evidence of direct blast injury—there were some such cases even upto 3 kms from the hypocentre. The sight of dazed children with foul smelling yellow pus oozing out of their ears and noses were quite common just a few days after the blast.

More than **370,000** people have been issued *hibakusha* certificates to-date. It should be emphasized that either consciously or unconsciously *hibakusha* and their children are treated as social outcasts and are discriminated against in many ways. A glaring example is that non-*hibakusha* will not marry them due to the fear that their offsprings may be born with genetic defects. Thus, they are forced to exist as a separate social

group. Many of them, therefore, try to hide the fact that they are hibakusha.

*The gruesome death of one of their own colleagues due to an accidental exposure to ionizing radiation, graphically demonstrated to the scientists who created the atom bomb the dangers of radioactivity. The following is a report on the incident by Robert Jungk:*

"A special subject brought up by the scientists at Los Alamos\* was the game of hide-and-seek played by the Army with the problem of radioactivity....It was explained that there was no dangerous radioactivity to be found in the ruins of Hiroshima, and the number of victims who had been exposed, at the moment of the explosion, to a fatal dose of radiation or one likely to cause chronic illness, was kept secret. Groves\*\* stated openly at a Congressional hearing that he had heard death from radiation was 'very pleasant'.

Such observations made the Los Alamos Scientists' blood boil. For at that very moment their twenty-six-year old colleague Harry Dagnian was struggling against the menace of a cruel death from the effects of radiation".

*On August 21, 1945, during an experiment, Dagnian accidentally exposed his right hand to a huge dose of radiation. He was immediately admitted to hospital.*

"But soon his hands grew more and more swollen and his general condition deteriorated rapidly. Delirium set in. The young physicist complained of severe pains....The patient's hair dropped out. The white corpuscles of his blood increased rapidly. Twenty four days later he died....For the first time the dangerous effects of the new power had been brought close, not in the form of a distant statistic, but as the suffering, pain and fatal sickness of one of their own group".

--- Robert Jungk (2:119), \*\*\*P.224

\* where one of the labs of the Manhattan Project was located

\*\* Brig. Gen. Leslie Groves, Head of the Manhattan Project.

\*\*\* see **Notes** (Figures in brackets indicate the section and the serial order of the note, which gives full particulars of the publication)

The travails of some sections of the atomic bomb victims were especially severe. In particular, the "A-bomb orphans" (the orphaned children and the orphaned elderly), women who were

pregnant at the time of the bombing, foetal victims, and "A-bomb maidens" (young girls with disfiguring scars on face, head, limbs, etc. due to keloids) suffered additional physical and mental distress. Besides the heavy burdens of grief over family losses and anxiety over A-bomb injuries, the problem of social disruption (which rendered social service agencies weak, if not useless) and day-to-day hardships made life extremely difficult for them.

### ***Psychological Effects:***

Apart from the articles, surveys, and other literature on the atom bomb victims, the numerous diaries written, as well as the drawings made by the survivors, probably give the most vivid and telling account of their psychological shock. The immediate reactions to the bombing of Hiroshima and Nagasaki have been categorized according to the following sequences: In the first stage people were startled by the flash and the bang. In the split second that followed people who did not lose consciousness were plunged into complete stupor, described as a state of mental blankness. In the next stage the survivors began to become aware of the death and destruction, the devastation and the horror, which made them seek escape.

From the studies carried out on the population of the two Japanese cities it appears that the psychological reactions were radically different from what is generally observed in natural disasters. A-bomb survivors went into a state of perplexity as can be expected when belief in the entire structure of existence collapses; they had a feeling that they were co-existing with death or with the dead. Indeed, as diaries, interviews, and narrations showed, almost every survivor was faced with insoluble problems, such as whether to kill their near ones trapped in collapsed buildings or leave them to the advancing fire. This led afterwards to great psychological stress among the survivors whose thoughts were at times dominated by the feeling of meaninglessness of life. Thus, the social re-adjustment of the survivors raised many difficulties.

Another major factor in later adjustment of the survivors was anxiety about disease and the increased risk of cancer and of

genetic defects in their offspring, including mental retardation and anomalies such as microcephaly. These fears were fed by the uncovering, as time passed, of many such late effects of radiation.

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### **THE WAR HAS NOT ENDED !**

Even forty-three years after its first use, the atomic bomb continued to take its toll. According to Dr. Shingematsu, head of the Radiation Effects Research Foundation at Hiroshima at least **80 to 90** people have died during **1987-1988** from illness linked directly to the atomic bombing. "For these people, and other survivors of the blast, the war has not ended", Dr. Shingematsu said. "They all wonder if and when they'll come down with these [radiation] diseases as a result of the bombing", he added.

*(Based on an **Associated Press** report from Hiroshima in **Patriot**, New Delhi, August 6, 1988)*

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The seriousness of atomic destruction cannot be fully understood unless, in addition to injuries suffered by individual persons, one also takes into account the damage done to the whole social fabric. The entire network of community life, all the social systems, structures, and functional organs built up over many years were ruptured as the whole of society was laid waste to its very foundations. In the overall breakdown of the cities, their administrative organs were also subjected to confusion and collapse. When the key members of a community are wiped out or wounded, the community itself greatly suffers. Moreover, centuries old cultural heritage is lost for ever. In short, the sufferings experienced by A-bomb victims and the community at large was beyond imagination, a blow unprecedented in human history.

***But what were the compelling reasons which led to the hasty use of the atomic bombs? Why this heinous crime?***

## 2

# WHY THIS HEINOUS CRIME?

## An Enquiry Into The Decision To Use Atomic Bombs On Japan

Political developments since August 1945, confirm that the U.S. decision to drop atomic bombs on Japan was a step which had grave consequences for the whole of humankind. However, several reasons are still advanced in defence of the abominable act. A detailed enquiry into the circumstances that led to the bombing exposes the hollowness of such apologetic statements. Ample evidence has been drawn from the testimony of prominent American, British and Japanese officials who held office at the time. They include the following:

- |                           |  |
|---------------------------|--|
| Harry S. Truman           | : President of the United States of America, 1945-1952   |
| Winston S. Churchill      | : Prime Minister of Great Britain during the major part of WW-II   |
| Gen. Dwight D. Eisenhower | : Supreme Commander of the Allied Forces in Western Europe during WW-II and President of the United States of America, 1953-1960 |
| James F. Byrnes           | : Leader of the right-wing in the Democratic Party during the early 1940s and the U.S. Secretary of State, 1945-1946             |
| Henry L. Stimson          | : Elder statesman and U.S. Secretary of War during WW-II   |
| Joseph C. Grew            | : Elder statesman and U.S. Acting Secretary of State, 1944-1945  |
| Toshikazu Kase            | : Senior official in the Japanese Foreign Office during WW-II  |

- Fleet Admiral W.D. Leahy : Chief of Staff to Presidents Roosevelt and Truman successively and the top ranking officer in the entire U.S. military hierarchy during WW-II
- Field Marshal Viscount Allenbrooke : Overall commander of all of Britain's forces during WW-II
- Harry Hopkins : Senior U.S. diplomat and special envoy of the U.S. President to the Soviet Union in 1945
- Gen. Douglas MacArthur : Supreme Commander of the Allied Forces in the South-West Pacific area during WW-II
- Brig. Gen. Leslie Groves : Chief of the Manhattan Project 1942-1945
- Dr. Arthur H. Compton : Director of the Metallurgical Project (a unit of the Manhattan Project), 1942-1945
- Dr. J. Robert Oppenheimer : Director of the Los Alamos Lab (another unit of the Manhattan Project) 1943-1945 and one of the key figures behind the construction of the atom bomb.

## **SUMMARY**

It was the U.S. President, Harry S. Truman, who authorised the use of atom bombs on Japan. While staunchly defending the decision, he declared that atomic bombing became necessary because that was the only way to end World War II and save American lives. However, many of Truman's own colleagues strongly contested his claim. They pointed out that, after Germany capitulated, Japan too was on the verge of surrender and there was every possibility that it would have surrendered prior to the atomic bombing had the United States offered the

same surrender terms earlier as it finally did **after** the atomic bombing. Why, then, did the U.S. leadership not do so?

The fact is that the U.S. leadership was intent on prolonging the war until the atomic bomb, which was being secretly assembled, was field tested. That was the underlying reason for adamantly insisting on unconditional surrender, a stipulation the U.S. leadership knew was totally unacceptable to the Japanese. In the process, instead of saving American lives many more were needlessly sacrificed!

Concomitantly, the summit conference of the three major Allied powers that was scheduled to take place following the surrender of Germany on May 8, 1945 (and which, among other things, was to take steps to terminate the war in the Far-East), was delayed by President Truman until July 16, 1945. As events unfolded, it became quite clear that the meeting was deliberately delayed in order to synchronize it with the first atomic test.

There were at least two reasons for pursuing this strategy. Had the war ended before the atom bomb was ready, it is likely that most of the scientists on the atomic bomb project would have refused to continue with the work. If they had done so, the United States could not have, at least in the immediate future, come into possession of the most deadly weapon with which it could put itself in a position to dictate terms to the rest of the world. Secondly, the existing opportunity to test the new device on 'live' targets in Japan in order to demonstrate and evaluate its power would have been lost.

During this same period, changes were taking place within Japan. Fearing that defeat in war might entail radical changes in the socio-economic structure of Japan, there emerged a so-called peace group which was looking for an end to the war in order to safeguard the imperial institution and preserve the existing social system. The U.S. leadership was fully aware of this development but refused to take note of it.

The successful atomic test brought about a change in U.S. strategy. Instead of prolonging the war any further, the new strategy was to employ the atom bomb as early as possible and attempt to bring about the surrender of Japan before the

scheduled Soviet entry into the war on August 8, 1945. However, due to pressure from within the U.S. Administration, the U.S. leadership issued an ultimatum to Japan giving it an opportunity to surrender before the atomic bomb was employed. But the terms and conditions of the ultimatum that was issued on July 26, 1945 (two days after the order to drop atomic bombs had been dispatched) were such that they made no impression on the Japanese.

Japan did not feel threatened by the ultimatum because it did not specify the consequences of Japan's non-acceptance. Moreover, the Soviet Union was not a party to the ultimatum. There was no mention in the ultimatum of what the future status of the Japanese Emperor would be nor any other indication that the Allies would **not** insist on unconditional surrender. More importantly nothing in the ultimatum actually suggested the duration within which the Japanese were expected to respond. Therefore, the Japanese cabinet did not feel a sense of urgency and decided to wait until a favourable response to its peace initiative was received before commenting on it. An inadvertent remark by the Japanese Prime Minister was, however, misinterpreted by the U.S. Administration to mean that Japan had rejected the ultimatum. Despite the fact that the U.S. leadership received concrete evidence to the contrary on July 28, 1945, this so-called rejection was used as the final justification for the dastardly use of atomic bombs.

The emergence of atomic diplomacy was symptomatic of the deterioration in relations between the U.S. and the U.S.S.R. U.S.A's relationship with the Soviet Union, which was by and large friendly during the time of President Franklin Roosevelt, began to deteriorate soon after President Truman, a right-winger, took charge on April 12, 1945. With the resurgence of right-wing politics in the United States, the co-operation and goodwill between the two major powers was quickly replaced with suspicion and distrust. President Truman and his chief advisor, James Byrnes (who subsequently became the U.S. Secretary of State), saw the atom bomb as the ideal weapon with which to dominate the world and it was to attain that pre-eminent position that the atom bomb was employed. Thus, the wanton

destruction of Hiroshima and Nagasaki was nothing but a calculated move by the then U.S. Administration to terrorize the rest of the world and hold humanity to ransom.

## 2.1 THE ISSUE AT STAKE

The world received the shocking news of the atomic destruction of Hiroshima from President Truman's broadcast a few hours after the U.S. air force carried out the attack. The U.S. President, in a subsequent address to the American people on August 10, 1945, said:

Having found the [atom] bomb, we have used it.... We have used it in order to shorten the agony of war, in order to save the lives of thousands and thousands of young Americans.<sup>1</sup>

Mr Truman continued to justify the macabre act even after he gave up office.

In 1945 I had ordered the atom bomb dropped on Japan at two places devoted almost exclusively to war production. We were at war. We were trying to end it in order to save the lives of our soldiers and sailors. The new bomb was a powerful new weapon of war. In my opinion it had to be used to end the unnecessary slaughter on both sides....We stopped the war and saved thousands of casualties on both sides.<sup>2</sup>

Such remarks, widely propagated by the media, have instilled the common belief among a good section of people that atom bombs were used on Japan because there was no other recourse for forcing Japan to surrender and end World War II. However, in 1965 Gar Alperovitz, an American historian, made what is considered the first scholarly challenge to this well entrenched view with evidence to the contrary.

"My own view," says Alperovitz, "is that presently available evidence shows the atomic bomb was not needed to end the war or to save lives and that this was understood by American leaders at that time. General Eisenhower has recently recalled that in mid-1945 he expressed a similar opinion to the Secretary of War..."<sup>3</sup>

Dwight Eisenhower, who was Supreme Commander of the American forces in Europe during the Second World War and later President of the United States from 1953-1960, has revealed that in July, 1945, when the U.S. Secretary of War, Henry

Stimson, informed him that the U.S. Government was preparing to drop an atomic bomb on Japan, he had opposed the decision. Recounting his reactions in his memoirs, Eisenhower wrote:

**...I voiced to him [Stimson] my grave misgivings, first on the basis of my belief that Japan was already defeated and that dropping the bomb was completely unnecessary, and secondly because I thought that our country should avoid shocking world opinion by the use of such a weapon whose employment was, I thought, no longer mandatory as a measure to save American lives. It was my belief that Japan was, at that very moment, seeking some way to surrender with a minimum loss of 'face'.<sup>4</sup>**

General Eisenhower was not alone in questioning the wisdom of such an act. From the reminiscences of several senior American statesmen it is quite apparent that they harboured similar misgivings. The revelations of his own colleagues, thereby, raise grave doubts about the veracity of Truman's version. However, over the years, all such contrary opinions have been systematically sidelined while the official version has usurped attention. Thus, despite overwhelming evidence to the contrary, Truman's arguments in defence of the gruesome act continued to hold sway and reports giving it credence still emanate from time to time. President Ronald Reagan's statement on the eve of the 40th anniversary of the atomic bombing is a typical example of this concerted attempt to justify Truman's action. Defending the atomic bombing, while addressing a press conference at the White House, Mr Reagan said:

**...we dropped the [atom] bomb in an effort to end what had been the greatest war in man's history....The casualties were estimated at more than a million if we continued. And I think to second-guess now those who had to make that awesome decision is ridiculous.<sup>5</sup>**

Others like Alwin Weinberg are even more vociferous in their support for Truman. Dr Weinberg, a veteran of the Manhattan Project, while giving vent to his feelings in an article in the *Bulletin of the Atomic Scientists*, said:

**I must confess that I have never been deeply troubled by the decision to drop the bomb....I have always been convinced by the simple minded argument that lives both American and Japanese, were saved by its use. I am unimpressed by the revisionist view that the Japanese would have capitulated very quickly....The 100,000 or more who died at**

**Hiroshima...were sacrificed**, as it seems to be turning out, so that mankind can **live in the shadow of the bomb**, but not be exterminated by it.<sup>6</sup> (*emphasis added*)

Is humankind destined to live in the shadow of nuclear weapons? Were Hiroshima and Nagasaki "sacrificed" in order to save humanity from the threat of extermination? Is Truman's explanation after all true? Were there no means other than atomic bombing to end the war? Or are such "simple-minded arguments" only a ruse to divert attention and to let the real reasons behind the atomic bombing lie hidden from history? These are questions that require detailed scrutiny.

## 2.2 WAS THERE NO OTHER RECOURSE ?

Atomic bombing was certainly not the lone option left for forcing Japan to surrender. American leaders were well aware that there were other means to end the war. As a result of the successful Allied offensive, Nazi Germany was ultimately forced to surrender on May 8, 1945—bringing the war in Europe to a close. Following Germany's capitulation, most American experts on Japan were of the opinion that Japan, too, was likely to surrender soon. The only stumbling block, they pointed out, was the uncertainty concerning the future status of the Japanese Emperor. Joseph Grew, the Acting Secretary of State and one of the top-most U.S. experts on Japan then, therefore, felt that in order to facilitate immediate surrender the U.S. President should give a public undertaking to the effect that "unconditional surrender would not mean the elimination of the present dynasty if the Japanese people desired its retention."<sup>7</sup>

Grew, a former U.S. Ambassador to Japan, further added:

My belief in the potential effect of such a statement at that particular juncture was fully shared and supported by those officers in the Department of State who knew Japan and the Japanese well...<sup>8</sup>

On his own initiative, as Acting Secretary of State, Grew called on President Truman on May 28, 1945, and presented this thesis. President Truman then asked Grew to discuss the proposal with the Secretaries of War and Navy and the Chief of Staff. According

to Grew's memorandum of that meeting, which took place on May 29, 1945:

Mr Stimson, Mr Forrestal, and General Marshall...were all in accord with the principle of the proposal **but that for certain military reasons, not then divulged**, it was considered inadvisable for the President to make such a statement at that juncture.<sup>9</sup> (*emphasis added*)

### **Stimson's View:**

A few days after this meeting, on June 18, 1945, plans for a U.S. invasion of Japan "without reliance on the atomic bomb which had not yet been tested" were authorised by the President and preparations for the operation had begun. The invasion which was scheduled to begin on November 1, 1945, was expected to be a long, costly and arduous undertaking. Therefore, on July 2, 1945, Henry Stimson, the U.S. Secretary of War, sent a memorandum to the U.S. President posing the following question:

Is there any alternative to such a forceful occupation of Japan which will secure for us the equivalent of an unconditional surrender of her forces...?

Mr Stimson then went on to add:

I am inclined to think that there is enough such chance to make it worthwhile our giving them a warning of what is to come and definite opportunity to capitulate.... I believe Japan is susceptible to reason in such a crisis to a much greater extent than is indicated by our current press and other current comment. Japan is not a nation composed wholly of mad fanatics of an entirely different mentality from ours....It is therefore my conclusion that a carefully timed warning be given to Japan by the Chief representatives of the United States, Great Britain, China and, if then a belligerent, Russia, by calling upon Japan to surrender and permit the occupation of her country in order to ensure its complete demilitarization for the sake of the future peace.

At the end of the memorandum Stimson specifically emphasized one aspect:

I personally think that if in saying this we should add that we do not exclude a constitutional monarchy under her present dynasty, it would substantially add to the chances of acceptance.<sup>10</sup>

Thus, Stimson had also expressed the same opinion as Grew's. **"It is possible, in the light of final surrender"**, argued Stimson a couple of years later, **"that a clearer and earlier exposition of**

**American willingness to retain the Emperor** [which they did eventually] **would have produced an earlier ending to the war;** this course was earnestly advocated by Grew and his immediate associates during May 1945."<sup>11</sup> (*emphasis added*)

Moreover, Stimson had also observed that:

**history might find that the United States, by its delay in stating its position** [regarding the future status of the Japanese Emperor] **had prolonged the war.**<sup>12</sup>

This revelation has serious implications.

## 2.3 PROLONGATION OF WAR AGAINST JAPAN

The startling disclosures of Joseph Grew and Henry Stimson, two of the top ranking officials in the U.S. Administration at that crucial time, raise two very pertinent questions:

**1) What were the military reasons, not divulged to Grew on May 29, 1945, that made President Truman reject Grew's proposal for ending the war?**(see Section 2.2 note 9)

**2) What were the benefits that the United States hoped to derive by prolonging the war?** (see Section 2.2 note 12)

It may be noted that it was President Franklin Roosevelt's sudden demise on April 12, 1945, while still in office, which resulted in Harry S. Truman, the then Vice-President, taking over the U.S. presidency. This unexpected change in leadership at that critical juncture was to have an adverse impact on many U.S. policies and consequently held grave implications for humanity as a whole.

Soon after Truman assumed office, the U.S. Secretary of War, sent to the new President an official memorandum on April 25, 1945, which mainly dealt with the new secret weapon then under development. The very first point in that memorandum said:

Within four months we shall in all probability have completed **the most terrible weapon ever known in human history**, one bomb of which could destroy a whole city.<sup>13</sup> (*emphasis added*)

President Truman, of course, was aware of this development because, according to him, about a week prior to receiving the

above memorandum he had been briefed by his Chief Advisor, James Byrnes, on the subject. Byrnes, who was the established leader of the right-wing group in the Democratic Party and, therefore, among the selected few who were aware of the atom bomb project, impressed upon Truman that:

**...the bomb might well put us in a position to dictate our own terms at the end of the war.<sup>14</sup>**

**From Stimson's memorandum and Truman's own admission, the inescapable conclusion is that it was the possibility of acquiring and testing a new deadly weapon (the atom bomb) which were the "military reasons, not then divulged" to Grew (note 9). It was certainly for the same reason that the U.S. leadership was intent on prolonging the war for a few more months (note 12).** On the other hand, had the United States offered surrender terms on the lines Grew and Stimson had proposed, Japan would undoubtedly have surrendered long before the atom bomb was ready for use. But circumstantial evidence shows that the repercussions of such a step would not have been acceptable to the then U.S. leadership for two reasons. There was a lurking fear in them that:

1) if Japan had capitulated prior to the development of the atom bomb then there was every likelihood that a large number of scientists engaged on the Manhattan Project may have refused to continue the work any further. Not only that, under the circumstances, these scientists would have almost undoubtedly campaigned for an international agreement to ban atomic weapons altogether. They had already proposed that there should be some sort of international control over the weapon. If this were to happen, then the U.S. leadership's attempt to acquire "the most terrible weapon ever known" (note 13) in order 'to dictate our own terms at the end of the war' (note 14) may never have materialised. (*The role of the scientists during this period is detailed out in Section 3*)

2) Had the war ended before the atom bomb was ready for use, then the proposed plans to demonstrate its power and measure its actual effects on 'live' targets in Japan could not have been executed. At that time, Japan was the only remaining adversary,

and could thus have provided the 'live' target for field testing the new device. (*This charge might seem preposterous until one examines the methodical way in which targets for the bombing were selected and the elaborate arrangements that were made for recording the grotesque event—see Sections 2.14.1 and 2.14.2*)

There are no other plausible explanations for not accepting the proposal for ending the war, when it was first made by Grew and Stimson, considering the fact that the United States—after employing the atom bombs—finally accepted surrender on the very same terms as proposed by them. Stimson's observation about the United States prolonging the war has, therefore, crucial implications. But before analyzing them, it is necessary to understand the concurrent changes that were taking place within Japan.

## 2.4 JAPAN'S PEACE INITIATIVE

Towards the end of 1944, news had reached the U.S. Administration that within the Japanese Government a group was mobilizing support for ending the war. According to British war historian Sir Liddell Hart:

Just before Christmas 1944, the American Intelligence in Washington received a report from a well-informed diplomatic agent in Japan that a peace party was emerging, and gaining ground there. The agent predicted that General Koiso's Government—which in July [1944] had replaced the Government under General Tojo that had led Japan into the war—would soon be succeeded by a peace-seeking government under Admiral Suzuki which would initiate negotiations with the Emperor's backing. This prediction was fulfilled in April [1945].<sup>15</sup>

Peace initiatives in Japan began as the result of a series of setbacks both Germany and Japan suffered during 1943 and 1944. By November 1944, large-scale U.S. air attacks on Japan had begun and by December end Japanese forces were losing ground in the Philippines. The end of January 1945, found the Soviet army advancing to within 70 miles of Berlin. Finally, on April 1, 1945, American forces landed on the Japanese island of Okinawa. The shocks reverberated by these steps precipitated the fall of Koiso's cabinet on April 5, 1945, and Suzuki then became Prime Minister.

The peace group realized that Japan could not continue the war for very long. The question before them, therefore, was how to arrange an orderly retreat so that defeat in war and the social upheaval that might accompany it would not result in the overthrow of the existing social system. One of the initiators of this move was Toshikazu Kase, an American educated senior government official in the Japanese Foreign office and a good friend of the U.S. Acting Secretary of State Joseph Grew. According to him:

All members of the group agreed that the preservation of the imperial house was of paramount importance.<sup>16</sup>

The peace group had already reached the conclusion that:  
Even in defeat...we could save the Crown, but in case of a Communist revolution our national structure would be shattered to pieces.<sup>17</sup>  
(Statement attributed to Prince Konoe, one of the leaders of the peace group)

In order to preserve the existing social system and conclude the war on favourable terms, Japan approached several neutral countries: first Sweden and finally the Soviet Union (which was not yet at war with Japan). There were several reasons for asking the Soviet Union to mediate : (1) to ensure the maintenance of neutral relations (stemming from the no-war pact signed between the two on April 13, 1941) and to prevent the Soviet Union from joining the war against Japan; (2) to attempt to create a rift in the relationship between the Soviet Union and the rest of the Allies with the wild hope that ultimately the Soviet Union might end up supporting Japan. According to Toshikazu Kase:

Some of the high-ranking [Japanese] officers were actually building up hopes of assistance from the Soviet Union! They argued that with the surrender of Germany the Allies were bound to fall out among themselves. Thus the Soviet Union might cultivate amicable relations with Japan in order to cope with the probable combination against her of the United States and Great Britain.... Such being the case our military strategists hoped the Soviet Union would extend us covert, if not overt, assistance in opposing the United States and Great Britain.<sup>18</sup>

He further added:

**Should the Soviet Union strike at us it would mean the instant collapse of our entire front, as we were hard pressed**

**everywhere...to save our own situation we tried to curry favour with the Kremlin.<sup>19</sup>**

These disclosures make it possible to comprehend that Japan's greatest fear at that time was an attack by the Soviet Union. In order to save the situation, the moderate group, which had emerged in Japan by then, wanted an end to the war, provided the Emperor's status was not compromised.

The U.S. Administration was aware of these moves. According to Stimson:

**It was known to us that she [Japan] had gone so far as to make tentative proposals to the Soviet Government, hoping to use the Russians as mediators in a negotiated peace. These vague proposals contemplated the retention by Japan of important conquered areas and were therefore not considered seriously.<sup>20</sup> (emphasis added)**

Thus, because the Japanese had not put forward any concrete proposal, the Soviet Union had grounds to suspect Japan's motives and so eventually rejected the overtures. Subsequently J.V. Stalin, Secretary General of the Communist Party of the Soviet Union and Head of the Soviet Government, informed Harry Hopkins, the special envoy of the U.S. President, of these developments during their meeting in Moscow on May 28, 1945. Soon after the meeting Hopkins cabled to his government this report:

1. Japan is doomed and the Japanese know it.
2. Peace feelers are being put out by certain elements in Japan and we should therefore consider together our joint attitude and act in concert about the surrender of Japan. Stalin expressed the fear that the Japanese will try to split the allies....The Japanese may offer to surrender and seek softer terms. While consideration of this has certain dangers as compared with [unconditional surrender] it nevertheless cannot be ruled out. Should the Allies depart from the announced policy of unconditional surrender, Stalin visualizes, imposing our will through our occupying forces and thereby gaining substantially the same results as [unconditional surrender].<sup>21</sup>

It is clear from this report that although Stalin rejected the Japanese overtures, he was agreeable to accepting modified surrender terms. Churchill, too, had held a similar opinion. At

Potsdam, according to Sir Liddell Hart, Churchill had suggested to Truman that:

...the Allies demand for 'unconditional surrender' might be somewhat modified to ease the way for the Japanese to surrender.<sup>22</sup>

It is, thus, evident that neither the Soviet Union nor Great Britain was averse to modifying the surrender terms.

It may also be pointed out that it was on May 29, 1945, the day after Hopkins had sent his report from Moscow, that the plea of the U.S. Acting Secretary of State for relaxing surrender terms was turned down by the U.S. President on grounds which were quite questionable (see Section 2 note 8). The U.S. Administration's role in delaying the post-European war summit is yet another intriguing factor. Given this background, Stimson's observation that the United States appears to have prolonged the war against Japan (see Section 2 note 12) may now be put in its proper perspective.

## 2.5 DELAY IN POTSDAM CONFERENCE\*

Why did the meeting of the three major Allied powers not take place immediately after the surrender of Germany? Why was this meeting, which was to discuss the post-war situation in Europe and implement the agreements arrived at similar meetings in Teheran and Yalta\*, delayed for about ten weeks until the middle of July 1945?

*\*(Meeting of Heads of Government of U.S.A., U.S.S.R. and Great Britain: Potsdam—July 17-August 2, 1945; Teheran—November 28- December 1, 1943; Yalta—February 4-12, 1945)*

The responsibility for delaying the meeting rests solely with the U.S. Administration. But at the same time, it is important to note that there was tremendous pressure even within the U.S. Administration for an early meeting. When the U.S. Acting Secretary of State, Joseph Grew, met with President Truman on May 15, 1945, he had forcibly pleaded that:

...it was of the utmost importance that the Big Three meeting should take place as soon as possible and not be postponed until July.<sup>23</sup>

In fact the previous day, Fleet Admiral W.D. Leahy, Chief of Staff to the U.S. President, had also given similar advice:

At our morning conference on May 14, 1945, I advised President Truman that an early meeting with Churchill and Stalin appeared necessary in an effort to settle the troublesome political difficulties in Europe, and to safeguard our plans for defeating Japan.<sup>24</sup>

But this advice was to go unheeded. Instead, in the last week of May 1945, President Truman sent two special envoys—Harry Hopkins to Moscow and Joseph Davies to London—for among other things, finalizing dates for the summit meeting according to his set plan. Truman, later recounting this manoeuvre, wrote in his memoirs:

On May 28 Hopkins informed me that Stalin [had] told him he would meet me at any time I wished and that there would be adequate quarters for such a meeting in the suburbs of Berlin. In reply I instructed Hopkins to inform Stalin that I perceived no objection to meeting in the Berlin area and that about the fifteenth of July appeared to be a practicable date for me. I so informed **Churchill, who in reply once again pleaded for mid-June.** Stalin in turn, agreed to July 15. **Churchill argued for early July, but at last the three of us agreed that the date would be July 15 and the place Babelsberg a suburb of Potsdam.** <sup>25</sup> *(emphasis added)*

From Truman's own account it is clear that Churchill was keen on convening the meeting as early as possible. In fact Churchill was so furious that he wrote angry notes to Truman presuming that Stalin was responsible for causing the delay. Churchill's message to Truman on May 30, 1945, said:

**I consider that July 15, repeat July, the month after June is much too late....I have proposed June 15, repeat June, the month before July, but if that is not possible, why not July 1st, July 2nd, or July 3rd?**<sup>26</sup>

Churchill, Grew, Leahy and others were of the opinion that mid-July was too late for the meeting. They felt that the delay might adversely affect British and U.S. interests in Europe while at the same time giving more time to the Soviets to consolidate their position in the area under their control.

Churchill had a personal motive too: he wanted the summit meeting to take place while he was still in office. The British

general elections were scheduled to be held on July 5, 1945, and Churchill was not too sure about his party's success at the polls. Therefore, he was hoping that a summit before the elections might boost his party's chances. He was thoroughly disappointed at his failure to arrange this. *(Eventually the Conservative Party lost the election and Churchill his Prime Ministership).*

But why was Truman so insistent on holding the meeting after mid-July—in the face of such stiff opposition from Churchill—and not earlier? **The significance of the timing of the conference became very clear when it was subsequently revealed that July 16, 1945, was the scheduled date for testing the first atomic weapon.** In fact this was precisely the reason for not holding the meeting earlier. **Truman's own daughter has admitted that it was so:**

**My father had stalled on a date for the conference because he wanted to put it off until the atom bomb was tested.<sup>27</sup>**

It is, therefore, quite apparent from what has been stated above that President Truman deliberately delayed the Potsdam Conference and prolonged the war in the Far-East to serve his own political ends and not for saving American lives. **Thus, contrary to Truman's claim, the prolongation of the war from the middle of May, 1945, until the second week of August 1945, resulted in the loss of many more Japanese and Americans lives—a fact which Truman very consciously sought to hide.**

## 2.6 IMPACT OF ATOMIC TEST ON STRATEGY

The first atomic test was successfully carried out as scheduled in the early hours of July 16, 1945 at the Alamogordo desert, New Mexico, U.S.A. This news, nevertheless, remained a closely guarded secret. But of those few who were informed of it some were absolutely thrilled. According to McGeorge Bundy:

...news of the atomic bomb was received in Potsdam with great and unconcealed satisfaction by Anglo-American leaders. At first blush it appeared to give democratic diplomacy a badly needed 'equalizer' [to the Soviet Red Army].<sup>28</sup>

Although Truman's own immediate response to the test has not been specifically recorded, Churchill's reaction has been well

captured by Field Marshal Viscount Allenbrooke, who was overall Commander of all of Britain's forces since the end of 1941 and was present in Potsdam at that time. In his diary entry of July 23, 1945, he wrote that Churchill:

had absorbed all the minor American exaggerations [of the atomic test] and, as a result, was completely carried away. It was now no longer necessary for the Russians to come into the Japanese war; the new explosive alone was sufficient to settle the matter. Furthermore, we now had something in our hands which would redress the balance with the Russians....**He was already seeing himself capable of eliminating all the Russian centers of industry and population** without taking into account any of the connected problems... **He had at once painted a wonderful picture of himself as a sole possessor of these bombs and capable of dumping them where he wished, thus all-powerful and capable of dictating to Stalin.**<sup>29</sup> (*emphasis added*)

Churchill's reaction is a typical example of the major Western responses to the first atomic test. Needless to say, the success of the atomic test had a profound impact on the American leadership and it influenced their thinking in every way.

Upto the time of the first atomic test, the U.S. strategy, as already detailed, was to delay the surrender of Japan and prolong the war in the Far-East. But as soon as details of this test were made available to the American leadership, they completely reversed their earlier strategy of delay and proceeded to employ their latest weapon with undue haste. Of course, not everyone agreed with this step. Therefore, after considerable debate within the U.S. Administration it was decided to issue an ultimatum in order to give Japan a chance to surrender before the employment of the atom bomb. However, the questionable way the dominant section of the U.S. leadership went about formulating and proclaiming the ultimatum to Japan clearly indicated that this exercise was merely a ritualistic one.

## 2.7 THE POTSDAM ULTIMATUM

Even a cursory glance at the text of the ultimatum\* arouses the suspicion that it was doctored for rejection. By probing the various terms and conditions a little deeper, the truth may easily be discerned.

\* (*see Appendix I*)

### 2.7.1 The Timing

The call for unconditional surrender was first made to Japan in January 1943, at the Casablanca meeting of heads of government of U.S.A. and Great Britain. There was a move to renew this call soon after Germany surrendered. However, according to Stimson:

There was much discussion in Washington about the timing of the warning to Japan. The controlling factor in the end was the date already set for the Potsdam meeting of the Big Three.<sup>30</sup>

But, according to Herbert Feis, James Byrnes, who had become the U.S. Secretary of State by then, insisted that:

the issuance of the Declaration should be postponed. When Stimson in the course of the day [July 17, 1945] asked him about these matters, **Byrnes said he was opposed to a prompt and early warning..**<sup>31</sup> *(emphasis added)*

Strange as it may seem, even at Potsdam, the United States may not have issued the ultimatum but for Stimson's persistence! "In fact, the opinion was expressed to me", says Grew, "by one American already in Potsdam, that if it had not been for Mr Stimson's whole-hearted initiative, the Potsdam Conference would have ended without any proclamation to Japan being issued at all."<sup>32</sup>

Thus, the U.S. leadership finally issued the ultimatum **only after** the specific written order to employ atom bombs had been sent out! On July 24, 1945, immediately after the detailed results of the July 16 atomic test reached Potsdam, secret orders were dispatched by the U.S. War Department to drop atomic bombs on Japan.<sup>33</sup> On the other hand, it was exactly **TWO DAYS LATER** on July 26, 1945 that the ultimatum to Japan to surrender was proclaimed.<sup>34</sup> Does not this order of priority seem rather odd? **Why was the order to bomb Japan issued even before the U.S. Administration ascertained what the response of Japan to an ultimatum would be?** Does it not imply that the ultimatum was issued as an afterthought? What was more, the very urgency with which the U.S. Administration dispatched the fateful order clearly indicates that it hoped to employ atom bombs on Japan as quickly as possible.

Yet another point to be noted is that **there was nothing in the ultimatum itself which specified the duration within which**

**Japan was expected to respond to it.** This is significant considering the fact that the Japanese leadership was totally unaware that they had but about one week (between July 27 and August 3, 1945) to ponder over the terms and conditions. That there was even this much time at their disposal was only apparent later on. The order which was issued on July 24 by the U.S. War Department, it is now known, had specifically said that the atom bomb should be employed "as soon as weather will permit visual bombing after about 3rd August, 1945."<sup>35</sup>

It may be added that even if the United States wanted to carry out the order before August 3, it may not have been in a position to do so because: (1) the atom bomb for the purpose had yet to be assembled; (2) at that time there were no long range inter-continental bombers which could have carried the bomb directly from the United States and air-dropped it over Japan. Therefore, to execute the order, the component parts of the atom bombs had to be first transported from the United States to the nearest, safe, U.S. air base, which was about 2000 kms south of Japan. In anticipation of the order, most of the components were shipped from San Francisco on July 16, 1945, itself. Later, the last bit of the required fissile material was flown in by air. With that, the first atomic bomb to be employed in war was finally assembled on the island of Tinian and was ready for use on July 30, 1945, a couple of days ahead of schedule. Thus, it would not be wrong to conclude that the instruction was to drop the atom bomb as soon as it was ready for use.

**But what was the compelling reason to drop atom bombs immediately after August 3, 1945?** Was it to pre-empt a major offensive by Japan which would have inflicted heavy losses on the United States? No, not at all. There was not the slightest chance of any such offensive—the troops of both sides were so dispersed that any such possibility was completely ruled out. **The fact is that the last major battle between U.S. and Japanese troops during the Second World War was the battle for Okinawa which ended on June 22, 1945, with the U.S. emerging victorious. From then on until the end of the war, apart from a few isolated incidents, at no time did American forces either actually face any organized challenge from the Japanese or even anticipate any**

**such attack.** (see Section 2 notes 128 and 129). Furthermore, the U.S. plan to invade Japan was scheduled to take place only in November 1945. Acknowledging this, Truman later wrote:

A month before the test explosion of the atomic bomb the Service Secretaries and the Joint Chiefs of Staff had laid their detailed plans for the defeat of Japan before me for approval....The army plan envisaged an amphibious landing in the fall of 1945 on the island of Kyushu, the southernmost of the Japanese home islands....The first landing would then be followed, approximately four months later....In all, it had been estimated that it would require until the late fall of 1946 to bring Japan to her knees.<sup>36</sup>

The absence of any other battle plan meant that **at the time of the atomic bombing the U.S. leadership was pretty well aware that there was no likelihood of another battle with the Japanese for at least another eleven weeks to come.** So while there was ample time for an extended warning period, why was the Japanese Government tacitly allowed just one week in which to respond? The U.S. Administration knew perfectly well that a struggle was on between the moderate peace-seekers and the militarists in the Japanese Government over the question of ending the war. With more time, perhaps, the peace-seekers may have overcome the resistance of the militarists (see Section 2.4 and Section 2.7.2 note 39). **Why, then, were the peace-seekers in Japan not given more time to consolidate their position? Moreover, why were the Japanese not specifically told that the ultimatum was time-bound—if it was, indeed, so? Thus, there is little doubt that the reason why Japan was not given adequate time was precisely to prevent the peace-seekers in Japan from gaining the upper hand and accepting the ultimatum.**

### **2.7.2 The Terms of Surrender**

Despite all advice to the contrary, the U.S. leadership rigidly stuck to its demand for unconditional surrender. At Potsdam, according to Grew:

even Mr Stimson was unable to have included in the proclamation a categorical undertaking that unconditional surrender would not mean the elimination of the dynasty if the Japanese people desired its retention.<sup>37</sup>

This was inspite of the fact that the radio message sent by the Japanese Foreign Minister to the Japanese Ambassador in Moscow on July 17, 1945, had again clearly emphasised this aspect. The message went as follows:

...if the enemy insists on unconditional surrender to the very end, then our country and His Majesty would unanimously resolve to fight a war of resistance to the bitter end. Therefore, inviting the Soviet Union to mediate fairly does not include unconditional surrender...<sup>38</sup>

As James Byrnes confirms, the American leaders were very well aware of this message:

The President had learned of the Japanese 'peace feelers' a day or two before our conference with Stalin, for we had broken the Japanese code early in the war.<sup>39</sup>

*(The Americans had broken the Japanese diplomatic code as early as June 1940. Since then all Japanese Foreign Office and command secret messages sent by radio could be read by the Americans—a factor which greatly helped them throughout the war).*

On that same day at Potsdam, the combined military staff of U.S.A. and Great Britain, after discussing the current text of the ultimatum to be addressed to the Japanese, came to the conclusion that one sentence—the one concerning the status of the Emperor—needed to be clarified. Admiral Leahy, in a memo to President Truman on the meeting, wrote that the Joint Chiefs:

...from a strictly military point of view consider it inadvisable to make any statement or take any action at the present time that would make it difficult or impossible to utilize the authority of the Emperor to direct a surrender of the Japanese forces in the outlying areas as well as in Japan proper.<sup>40</sup>

Yet, according to Feis,

...the Secretary of State [James Byrnes] had decided that the Declaration should not contain any promise that the Japanese would be allowed to retain the Emperor...<sup>41</sup>

What is bewildering is the fact that immediately after the atomic bombing, the U.S. leadership reversed its earlier position and readily agreed to retain the Emperor. Feis adds that when the Soviets expressed their surprise over the sudden reversal of

policy, Averell Harriman, the U.S. Ambassador in Moscow, offered an explanation:

Harriman explained [that] the reason why we were replying in this sense was that the American government thought that only the Emperor could issue effective orders that would cause the Japanese troops everywhere to stop fighting at once.<sup>42</sup>

Thus, the same argument put forward earlier by the Joint Chiefs, which the U.S. leadership had outrightly rejected just prior to the atomic bombing, was quickly accepted by the same leadership immediately after the atomic bombing. Commenting on this jugglery, Hanson Baldwin, the then military editor of the *New York Times*, said:

**...the United States demanded unconditional surrender, then dropped the [atom] bomb and accepted conditional surrender [i.e. agreed to retain the status of the Emperor], a sequence which indicates pretty clearly that the Japanese would have surrendered, even if the bomb had not been dropped, had the Potsdam Declaration included our promise to permit the Emperor to remain on his imperial throne.**<sup>43</sup>

Margaret Gowing, historian and archivist, United Kingdom Atomic Energy Authority, has expressed a similar opinion:

At Potsdam, and after news of the successful atomic bomb test had been received, Mr. Churchill added strong pleas that the rigid insistence on unconditional surrender should not prevent an attempt to persuade Japan to make peace....**With the help of a good deal of hindsight it now seems probable that a specific renunciation of the formula of unconditional surrender, and a clear announcement in the Potsdam Proclamation that the Japanese could keep their Emperor, might have made the Japanese Peace Party victorious and avoided the use of atomic bombs.**<sup>44</sup>(*emphasis added*)

Joseph Grew, the top-most official (next only to the Secretary) in the U.S. Department of State during the War, later lamented over the decision not to relax surrender terms. In a letter to Stimson on February 12, 1947, he wrote:

From statements made by a number of moderate former Japanese leaders to responsible Americans after the American occupation [of Japan], it is quite clear that the civilian advisers to the Emperor were working toward surrender long before the Potsdam proclamation, even

indeed before my talk with the President on May 28 [1945], for they knew then that Japan was a defeated nation...

Concluding the letter, Grew said:

**...I and a good many others will always feel that had the President issued as far back as May 1945, the recommended categorical statement that the Japanese dynasty would be retained if the Japanese people freely desired its retention, the atom bomb might never have had to be used at all.<sup>45</sup>**

Joseph Grew submitted his resignation on August 15, 1945, (the day Japan announced its surrender) after serving the U.S. Administration for over forty years. Before the war, Grew had close contacts with many senior officials of the Japanese Government. This association was to later earn him an unsavoury reputation because of which Grew and those who pleaded for retaining the Japanese Emperor were roundly abused as appeasers. It might seem that the majority of officials in the U.S. Administration, motivated by loftier ideals, were then intent on dismantling all vestiges of the Japanese militaristic apparatus. This was probably why they continued to insist on unconditional surrender. But future developments completely belied all such hopes. Exposing the hypocritical attitude of these officials, Grew, in a letter to some friends on September 30, 1945, wrote:

Another amusing sidelight is that [after the war] the press and public insisted on getting rid of the so-called "Japan crowd" and "soft peace boys" in the Department [of State]. This was thoroughly done....The funny thing about this is that our plan for the post-war treatment of Japan was a great deal more drastic than the plan finally sent by Byrnes to MacArthur [Commander of the U.S. occupation Forces in Japan]. The "Japan crowd" and the "soft peace boys" wanted to go a lot further than was finally done.<sup>46</sup>

On behalf of the Allies the U.S. occupation forces were vested with the task of prosecuting all those responsible for Japan's war crimes. However, **barring a few military officers, the real culprits behind Japan's imperialistic adventure were never brought to book.**

These facts, therefore, make it obvious that the reason why the U.S. leadership remained evasive all along about the future status

of the Emperor was only to ensure that Japan did not surrender before the atom bomb had unleashed its fury.

### **2.7.3 The Signatories To The Ultimatum**

The Soviet Union, it may be emphasized, was not one of the signatories to the ultimatum—a factor of great significance. In the words of Robert Donovan, this is what happened at Potsdam on July 26, 1945:

The United States, Great Britain and (by radio) China, the three allies at War with Japan, signed the proclamation without even clearing it with the Soviet leaders, who lived down the road a piece.<sup>47</sup>

Recounting this move, Byrnes adds that:

The declaration was immediately released for publication and a copy was sent by a special messenger to Mr Molotov [Soviet Foreign Minister]....Mr Molotov telephoned later in the evening asking that the declaration be held up two to three days. When he was told it already had been released he seemed disturbed....He did not say he desired to make any change but said simply that we should have consulted him.<sup>48</sup>

By keeping the Soviet Union in the dark about the whole plan, the United States effectively prevented it from becoming a party to the ultimatum. On the other hand, one of the main objectives of the Potsdam meeting was to discuss the future conduct of the war in the Far-East. Truman himself admits this:

**There were many reasons for my going to Potsdam, but the most urgent, to my mind, was to get from Stalin a personal reaffirmation of Russia's entry into the war against Japan, a matter which our military chiefs were most anxious to clinch. This I was able to get from Stalin in the very first days of the conference.**<sup>49</sup>

In spite of obtaining this assurance from Stalin, why was he not consulted about the ultimatum? After all the Soviet Union was a major ally of the United States and Great Britain in the War and its representatives were present in Potsdam at that time. Why, then, was the Soviet Union prevented from becoming one of the signatories? The most probable reason could be that the U.S. leadership was apprehensive that such a step might actually induce Japan to surrender before the United States had a chance to employ the atom bomb. Herbert Feis, special consultant to the

U.S. Secretary of War during 1944-46 and someone who otherwise defends Truman's action, concedes that this might have been so. Says Fels:

It is interesting to speculate what might have happened if Stalin had been asked to subscribe publicly to the Potsdam Declaration. Had he agreed to do so, it is possible that the immediate response by the Japanese government might have been quite different—and indicative of a willingness to surrender on the proffered terms if given assurances about the future of the Imperial Institution. In that case there would have been no need or occasion to use the bomb.<sup>50</sup>

The motive of the United States in preventing the Soviet Union from becoming one of the signatories is, therefore, very clear.

#### **2.7.4 Consequences of Rejection Not Explicit**

The United States did not explicitly reveal how it proposed to carry out its threat of "prompt and utter destruction" (*see Appendix I clause 13*) in case Japan rejected the ultimatum. According to Herbert Fels, the U.S. leadership had decided that the Japanese "were not to be told that the United States had come into possession of a much more destructive weapon than the world had ever known." He further added:

Among the several reasons for not being explicit regarding the existence or the nature of the atomic bomb was quite possibly the fact that the American government could not reveal these matters to the Japanese without also revealing them to the Russians.<sup>51</sup>

Indeed, if the existence of such a weapon was at all disclosed, not only the Japanese and the Soviets, but the whole world would have been alarmed by it. Then there was every possibility that pressure might have been brought to bear upon the U.S. leadership not to employ such a deadly weapon. Once the veil of secrecy was lifted, many of the atomic scientists themselves would probably have taken the lead in publicly opposing its use.

By concealing the nature of the new weapon, the Japanese were misled by the United States into believing that the proclaimed threat was an empty one, because there was no known 'conventional' way in which such a threat could have been carried out effectively. This was because the United States was already

applying the maximum pressure it was then militarily capable of exerting on Japan. As a result of large scale 'conventional' bombing attacks, heavy damage was inflicted on most Japanese cities and its airfields and ports. The major chunk of the Japanese air force and navy were either destroyed or incapacitated (*see Section 2 notes 68 and 108*). Also by July 9, 1945, the U.S. and British navies could pound Japan's coastline from close quarters with practically no resistance from either the air, sea or the shore. And, according to a news report released on August 3, 1945:

It was stated at Admiral Nimitz's\* GHQ that Superfortresses had mined every important Japanese harbour as well as all those from Korea to the Soviet frontier, having thus achieved a 'complete blockade of the Japanese homeland..'<sup>52</sup>

*\*(Commander-in-chief of the U.S. Pacific Fleet)*

Furthermore, the Japanese army in South-East Asia was more or less cordoned off by the Allied forces, thereby, rendering it impotent. But apart from these steps, none of the three signatories to the Potsdam ultimatum—the United States, Great Britain or China—was in a position to immediately enforce surrender. Even collectively they could not just then invade Japan or drive out the powerful Japanese occupation army from China and Korea.

There were several reasons for this. First of all distance was a major factor. U.S. military bases closest to Japan were in the Marianas Islands and in the Philippines both about **2000** kms away, while the major U.S. base in the Pacific was at Pearl Harbour some **5000** kms South-East of Japan. (The island of Okinawa, a potential U.S. base **500** kms South-West of Japan, was seized from the Japanese only at the end of June 1945). The magnitude of the logistical problems involved in launching any attack on the Japanese mainland from these bases may well have been imagined. It was because of this factor that no such attack was envisaged before November 1945 (*see Section 2 note 36*).

Under these circumstances, by no stretch of imagination could the United States have posed any immediate threat to Japan through any known 'conventional' means. The British forces were in no better position either. As for the Chinese they were

largely disorganized and ill-equipped to dislodge even the Japanese contingent occupying China at that time. The Japanese were well aware of this situation. Therefore, they did not feel threatened by the ultimatum because the consequences of its non-acceptance were not evident.

Thus, what is evident from the overview is that, as far as the Japanese could probably make out, the ultimatum on the face of it was largely devoid of substance.

## 2.8 JAPAN'S REACTION

Describing the reactions within the Japanese Government, Toshikazu Kase says that the ultimatum:

was not formally addressed to our government. We received it only through our radio monitoring service. **Moreover we did not know what the position of the Soviet Union was regarding it....** Therefore after mature deliberation the hastily convened cabinet decided to keep silence for a while about the Potsdam proclamation pending further developments.<sup>53</sup>*(emphasis added)*

But the first public statement made by the Japanese Prime Minister, Suzuki, on July 28, 1945, was subjected to various interpretations. The Americans officially interpreted it as a total rejection of the ultimatum. According to American historian Charles L. Mee Jr.:

The Foreign Broadcast Intelligence Service of the U.S. Federal Communication Commission translated the word [*mokusatsu* (Suzuki's response)] as 'ignore'. Suzuki later told his son that he meant to have it convey the meaning of the English expression "no comment". The headline in New York Times conveyed the sense in which the American leaders chose to take the Japanese response:

JAPAN OFFICIALLY TURNS DOWN  
ALLIED SURRENDER ULTIMATUM.<sup>54</sup>

This version is substantiated by Truman's own statement which claimed that the Japanese "leaders promptly rejected that ultimatum."<sup>55</sup>

Later, trying to clarify the cabinet decision, Kase said:

True, the cabinet decided to 'ignore' the proclamation, but to ignore it should have meant simply that we refrained from commenting on it. To

state expressly that we would ignore the proclamation was entirely contrary to the purpose of the decision.<sup>56</sup>

In fact, at that time, Japan's only fear was an attack by the Soviet Union, a step which would have put the Japanese under tremendous pressure on their Manchurian front. This was because of two factors: (1) the Soviet Union's proximity to Japan, and (2) the Soviet Union's preparedness to launch a full-scale attack on the Japanese forces in Manchuria, Korea and Southern Sakhalin. The Soviets then had a joint frontier well over **3,000** kms long with territories controlled by the Japanese in Manchuria. Also, a large contingent of Soviet armed forces had already been deployed all along the Manchurian border down to Vladivostok, a major Soviet naval base in the Far-East. Vladivostok, which was very close to the northern tip of Korea, was linked to Moscow by a railway network going around the Manchurian border. Moreover, Hokkaido, northern-most of the four main Japanese home islands, lay just about **50** kms south of the Soviet island of Sakhalin, which itself lay adjacent to the eastern coast of the Soviet mainland. Furthermore, on April 5, 1945, the Soviets had repudiated the no-war pact, signed with Japan four years earlier. This indicated that they were both prepared, and willing, to launch an attack on Japan. But considering the fact that the Soviet Union was not a party to the Potsdam ultimatum, it appeared that they would not join the war against Japan. Not expecting any dramatic change in the prevailing situation, the Japanese leaders were probably hoping that, perhaps with a little more time, their peace initiative might bear fruit and that they would be able to negotiate better surrender terms.

The American leaders were, of course, aware of Japan's desire to end the war. On the very day the Japanese Prime Minister, Suzuki, had supposedly rejected the Potsdam ultimatum, American intelligence had intercepted cipher messages from the Japanese Foreign Minister to the Japanese Ambassador in Moscow revealing a totally different story. This is admitted by none other than the then U.S. Secretary of State, James Byrnes, himself. According to him, on July 28, 1945, two days after the proclamation of the ultimatum:

**Secretary Forrestal arrived and told me in detail of the intercepted messages from the Japanese government to Ambassador Sato in Moscow indicating Japan's willingness to surrender.<sup>57</sup>**

**ALTHOUGH ON JULY 28 THE U.S. LEADERSHIP HAD DEFINITE KNOWLEDGE ABOUT JAPAN'S WILLINGNESS TO SURRENDER, THEY FEIGNED IGNORANCE AND MADE NO ATTEMPT TO CANCEL THE ORDER ISSUED ON JULY 24 TO DROP ATOMIC BOMBS.** Instead on July 30, the U.S. President sent a specific directive:

Release when ready but not sooner than August 2 - HST.<sup>58</sup>

The purpose of the directive was two-fold : (1) to reconfirm the July 24 order; (2) to stay the atomic bombing until after the conclusion of the Potsdam Conference scheduled to end on August 2, 1945. Thus, "as soon as weather permitted", on August 6, 1945, the first atomic bomb on a 'live' target was exploded over Hiroshima—the so-called 'rejection' of the ultimatum by the Japanese providing the final justification for the cold blooded and dastardly act.

**Therefore, there can hardly be any doubt that the U.S. leadership was intent on employing the atom bombs in order to demonstrate the power of the latest weapon it then possessed. The presumption probably being that such a rash display of its power would enable it to dictate its own terms to the rest of the world. As a prelude to pursuing this strategy, the new leadership in Washington consciously allowed relations with the Soviet Union to deteriorate.**

## **2.9 DETERIORATION IN U.S.—U.S.S.R. TIES**

The fact that the Soviet Union was not consulted before the issuance of the Potsdam Declaration was an indication of the deterioration that had set in in the relationship between the U.S. and the U.S.S.R. The situation was such that there was a marked reluctance on the part of the United States to continue the policy of co-operation with the Soviet Union—a course that was actively pursued during President Franklin Roosevelt's time.

This change in attitude was, indeed, first noticed by Harry Hopkins, one of the senior-most American diplomats then. While he was on an important diplomatic mission as a special envoy of President Truman to the Soviet Union during the last week of May 1945, Hopkins could not but ponder over this change. Robert Sherwood, basing himself on the full records of that diplomatic mission, states that Hopkins had made the following observations at that time:

**Two months ago there had been overwhelming sympathy among the American people for the Soviet Union and complete support for President Roosevelt's policies...**

But Hopkins was shocked at the change that had come about since:

**In fact, in the last six weeks deterioration of public opinion had been so serious as to affect adversely the relations between our two countries....The friends of Roosevelt's policy and of the Soviet Union were alarmed and worried at the present trend of events, and did not quite understand why, but it was obvious to them that if present trends continued unchecked the entire structure of world co-operation and relations with the Soviet Union which President Roosevelt and the Marshal [Stalin] had labored so hard to build would be destroyed.<sup>59</sup>**

**Exactly six weeks earlier on April 12, 1945, Truman had assumed the U.S. Presidency.**

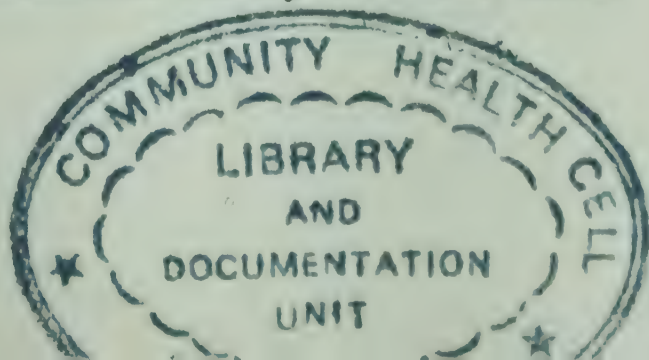
### **2.9.1 Rightists Take Over U.S. Leadership**

The new U.S. President, Harry S. Truman, in fact represented that section of the Democratic Party—the right-wing—which had consistently opposed co-operation with the Soviet Union. It may be recalled that nearly four years earlier when on June 22, 1941, Nazi Germany declared war on the Soviet Union, Truman's reaction was as follows:

**If we see that Germany is winning the war we ought to help Russia and if Russia is winning we ought to help Germany and that way let them kill as many as possible...<sup>60</sup>**

Moreover, for the 1944 U.S. Presidential elections, Truman secured nomination as the vice-presidential candidate of the Democratic Party, in place of the incumbent Henry Wallace, after

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a bitterly fought contest—a contest which almost split the party. Robert Garson, who made a detailed study of the inner-party struggle in the Democratic Party during that period, has pointed out that:

Although he was the *bete noire* of the South, Wallace was the hero of the urban coalition of the North. Liberals respected his sense of vision. His dream of a postwar America that would dedicate itself to the elimination of poverty, injustice, and racism endeared him to many workers and to the struggling youths of the black ghettos. Except for Roosevelt himself, Wallace was the chief personification of the New Deal....He was consequently, a sitting target for dissident southerners\*.... Well before the [Democratic Party's 1944 National] convention southern leaders had planned to unite in their opposition to Wallace and to replace him with an acceptable southerner.<sup>61</sup>

*\*(At that time, the views of most of the Democratic Party leaders from the southern states of U.S.A. were not very different from their predecessors, who in 1865 resorted to civil war to defend Black slavery in the United States. They represented those intent on preserving White supremacy by staunchly opposing social and economic reforms).*

The contention of these right-wing leaders was that:

...never before in the history of our party had the position of Vice-President on the Democratic ticket been more important than it is this year.<sup>62</sup>

This was due to the fact that Franklin Roosevelt, who had been nominated for the post of President for an unprecedented fourth term, was not keeping well. His health was causing concern and it was rumoured that he would not live long enough to complete his term. Therefore, the right-wingers applied tremendous pressure and, in what was supposed to be a compromise, succeeded in securing the nomination of Truman (who was technically not a southerner) for the post of Vice-president.

President Roosevelt died in the fourth month of his fourth term and Truman took over. But soon after Truman assumed office, he came out in his true colours:

His first move was to summon James F. Byrnes to Washington to become secretary of state...Byrnes, of course, had been the South's principal choice for vice-president in 1944 [but because his name was staunchly opposed by the Liberals, the so-called compromise was worked out]; now, one year later, he was appointed the key architect of American

foreign policy—and was also next in line to the presidency. Many former cohorts of Roosevelt left the cabinet to be replaced by Truman's choices....**Southerners were confident that this rapid change of personnel boded well for the reinstatement of more conservative policies...**<sup>63</sup> (*emphasis added*)

The change in attitude became evident when on April 22, 1945, President Truman met with his principal advisors for the first time. According to Admiral Leahy who was present at the meeting:

the consensus of opinion among the group Truman had called together was that **the time had arrived to take a strong American attitude toward the Soviet Union...**<sup>64</sup> (*emphasis added*)

This change in attitude was ominous of what was to follow.

Being a close friend of Truman, Byrnes' first assignment was to act as the President's personal advisor. Byrnes, being the most prominent right-winger in the Democratic Party was among the few politicians who were taken into confidence regarding the work on the atomic bomb. So in their very first meeting, under the new setting in mid-April 1945, Byrnes shared the great secret with Truman. Later recalling this conversation, Truman wrote:

Byrnes...told me that the weapon might be so powerful as to be potentially capable of wiping out entire cities and killing people on an unprecedented scale. And he added that in his belief **the bomb might well put us in a position to dictate our own terms at the end of the war.**<sup>65</sup> (*emphasis added*)

The new American leadership was overjoyed at the thought that they would soon acquire the ideal weapon for imposing their will with impunity. The result was that such pernicious thoughts emboldened them to pursue a reckless foreign policy.

## 2.10 ATTITUDE TO SOVIET PARTICIPATION

Long before Truman came into office, the United States, Great Britain and the Soviet Union were co-operating with each other in the war against the Nazis. And according to McGeorge Bundy:

Much of the policy of the United States towards Russia, from Teheran to Potsdam was dominated by the eagerness of the Americans to secure a firm Russian commitment to enter the Pacific war. And at Potsdam there

were Americans who thought still in terms of securing Russian help in the Pacific War.<sup>66</sup>

This was because, at that time, there was a very large concentration of Japanese troops in Manchuria and Korea and it was considered difficult for the United States to subdue this force on its own. The United States was, therefore, keen on the Soviet Union joining the war against Japan. This is acknowledged by Truman. "Our military advisors" he said, "had strongly urged that Russia should be brought into the war in order to neutralize the large Japanese forces on the China mainland and thus save thousands of American and Allied lives."<sup>67</sup>

Meanwhile, the U.S. War Department in July 1945, had estimated the total strength of the Japanese Army at about 5 million: in the home islands slightly under 2 million; in China and Korea slightly above 2 million; in South-East Asia and the East Indies less than one million. According to Mr Stimson's assessment :

The Japanese Army was in much better condition than the Japanese Navy and Air Force. The Navy had practically ceased to exist except as a harrying force against an invasion fleet. The Air Force had been reduced mainly to reliance upon Kamikaze, or suicide attacks.<sup>68</sup>

But the Japanese Army, except in Manchuria and Korea, remained largely incapacitated and impotent due to lack of logistical support. In Manchuria and Korea were stationed some of Japan's best troops—a force that had suffered the least during Japan's three-and-a-half year military campaign. Moreover, it was mostly self-sustaining and also not constrained in its movements. In short, it was the most potent force still in her command. Nationalist forces in China and Korea were too weak and ill- equipped to effectively challenge this force. But facing the Japanese across the Manchurian border was the powerful Soviet Army.

A no-war pact had been signed between the Soviet Union and Japan on April 13, 1941, just a couple of months before Germany attacked the Soviet Union and about eight months before Japan attacked the United States. Although the Soviet Union still had to station a large contingent of troops on the Manchurian border,

the pact partly saved the Soviet Union from having to wage war simultaneously on two fronts. But on April 5, 1945, soon after it was well on the road to victory on the Western Front, the Soviet Union served notice to Japan that it was denouncing the no-war pact.

Following this, at the Potsdam Conference, the Soviet Union informed its allies—U.S.A. and Great Britain—that it would be ready to open its Eastern Front and launch an offensive against Japan in accordance with the decisions taken at Yalta in February 1945. "At Yalta" confirms Truman, "Russia had agreed, and here at Potsdam she reaffirmed her commitment, to enter the war against Japan three months after V-E Day [Victory Europe day—May 8, 1945] provided that Russia and China had previously concluded a treaty of mutual assistance."<sup>69</sup>

*(At the Yalta Conference, one of the provisions of the agreement arrived at provided for the restoration to the Soviet Union of those areas Russia had lost to Japan during the Russo-Japanese war of 1904-5).*

But the successful atomic test brought about a very significant change in the attitude of the U.S. leadership. McGeorge Bundy, reflecting Stimson's views, comments that:

the news from Alamogordo\*, arriving at Potsdam on July 16 made it clear to the Americans that further diplomatic efforts to bring the Russians into the Pacific war were largely pointless.<sup>70</sup>

*\*(Alamogordo desert, New Mexico, U.S.A., where the first atomic test was carried out on July 16, 1945).*

James Byrnes, the U.S. Secretary of State, was firmly of this opinion:

As for myself, I must frankly admit...I would have been satisfied had the Russians determined not to enter the war. Notwithstanding Japan's persistent refusal to surrender unconditionally, I believed the atomic bomb would be successful and would force the Japanese to accept surrender on our terms. I feared what would happen when the Red Army entered Manchuria.<sup>71</sup>

What would have happened had the Red Army entered Manchuria?

Joseph Grew, for example, had expressed the fear that the United States stood to lose a great deal. On May 19, 1945, in a private memorandum, he had written in alarm:

Once Russia is in the war against Japan, then Mongolia, Manchuria, and Korea will gradually slip into Russia's orbit, to be followed in due course by China and eventually Japan.<sup>72</sup>

It may be recalled that Grew was adamant about offering softer surrender terms to Japan precisely to avoid this 'danger'. **If this was the genuine fear which bothered Byrnes, he could have readily accepted Grew's proposal (see Section 2.2) and ended the war much before the Soviets were likely to enter it. But why did he not do that? No, this was not what was bothering Byrnes most. His real concern was the possibility that once the Soviets joined the war against Japan, there was every likelihood that Japan would surrender at once and, thereby, deny the United States a chance to employ the atom bomb.** It was also for the same reason that the United States did not want to reveal beforehand the nature of the new weapon that the U.S. was planning to use on Japan. This too is evident from what James Byrnes disclosed to Herbert Feis during an interview on February 23, 1958. According to Feis, Byrnes told him that:

he was afraid that if Stalin were made fully aware of the power of the new weapon, he might order the Soviet Army to plunge forward at once.<sup>73</sup>

Obviously, Byrnes did not want to take any such risk!

### **2.10.1 Tactics To Frustrate Soviet Entry**

A prerequisite for Soviet entry into the war, as already mentioned, was a Sino-Soviet treaty of friendship and co-operation as envisioned in the Yalta protocol, because a vast area then under Japanese occupation in the Far-East actually belonged to China. But, as the Potsdam Conference progressed, the United States, according Robert Messer:

set about to overturn completely the Yalta Far Eastern agreement....By then, Truman and Byrnes knew...the atom bomb worked and the Russians were no longer needed to defeat Japan. Indeed, their help was no longer desired.<sup>74</sup>

Therefore,

By the 20th [of July 1945] Byrnes was actually trying to thwart Soviet entry by encouraging the Chinese to prolong talks in Moscow until after the bomb ended the war. As Brown\* recorded in his diary for that date:

'JFB determined to outmaneuver Stalin on China. Hopes Soong [Chinese Foreign Minister] will stand firm and then Russians will not go in war'.<sup>75</sup>

*\*(Walter Brown was James Byrnes' secretary)*

Thus, Byrnes, Truman, and others, according to Gar Alperovitz,

no longer directed their efforts to forcing capitulation before November 1, target date for an [U.S.] invasion [of Japan], but before the August 8 target date for Soviet entry.<sup>76</sup>

In fact, a similar opinion was expressed even earlier by Prof. P.M.S. Blackett, the Nobel Prize Winner for physics in 1948, in his book 'Military and Political Consequences of Atomic Energy' (1948). Substantiating Prof. Blackett's argument, Prof. Philip Morrison, one of the group leaders of the Manhattan Project and a member of the team that finally assembled the atom bomb on the island of Tinian, has testified that:

**... a date near August tenth was a mysterious final date which we, who had the daily technical job of readying the bomb, had to meet whatever cost in risk or money or good development policy.** This is hard to explain except by Blackett's thesis for the tenth was about the date on which the Russians had agreed to enter the war.<sup>77</sup> *(emphasis added)*

## 2.11 SOVIETS JOIN WAR AGAINST JAPAN

On August 6, 1945, just two days prior to the scheduled date for Soviet entry into the war against Japan, Hiroshima was bombed. But the first atomic attack did not evoke any noticeable reaction from the Japanese who were being simultaneously subjected to intense 'conventional' bombing attacks. In fact it was never known for sure whether the shock from an atom bomb by itself would really force Japan to capitulate. This was because, according to Robert Donovan:

[even] American officials were...too unfamiliar with the weapon to realize that one or even two attacks would force surrender in a matter of days.<sup>78</sup>

Therefore, following the atomic bombing, when Stimson and Forrestal, the two service secretaries of war and navy respectively, wanted the U.S. President as a gesture to halt the ongoing 'conventional' air and naval attacks on Japan, he turned

down the suggestion. The President "refused to take a chance on easing the pressure. Heavy conventional bombing raids continued to pound the Japanese to the very end."<sup>79</sup>

Another factor also has to be taken into account. After the first two atomic bombs ever to be made were exploded—one during a test in the U.S. and the other over Hiroshima—only one A-bomb remained in stock. This was because their rate of production at that time was extremely small. There were a lot of difficulties involved in obtaining fissile material and it would have taken at least another few weeks for more atom bombs to be ready (*see Section 2 notes 91, 92 & 93*) Hence, when the influential U.S. Senator Richard B. Russell Jr. pleaded for using atom bombs on many more Japanese cities, President Truman had no other recourse but to disagree with the demand. In his reply to Senator Russell on August 9, 1945, Truman was, thus, forced to make a frank admission:

**It is my opinion that after the Russians enter into the war the Japanese will very shortly fold up.**<sup>80</sup>

The U.S. leadership was also fully aware that the Combined Intelligence Committee of the American and British Staff had made an official assessment in early July 1945, that:

**An entry of the Soviet Union into the war would finally convince the Japanese of the inevitability of complete defeat.**<sup>81</sup>

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*Truman was very well aware of the Soviet plan to enter the war. According to him:*

On May 28 [1945] Hopkins and Harriman got from Stalin a **very important declaration** which Hopkins cabled me. "Harriman and I saw Stalin and Molotov for the third time last night," Hopkins said. "Following are the important results: **The Soviet Army will be properly deployed on the Manchurian positions by August 8.... He [Stalin] left no doubt in our minds that he intends to attack during August.**"

--- Harry S. Truman (2:14), p.264 (*emphasis added*)

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Dr Arthur Compton, Director of the Metallurgical Project (a unit of the Manhattan Project) throws further light on Truman's strategy:

The date of **8 August**, Stalin explained, was the soonest that it would be possible for their [Soviet] forces to be ready on the Manchurian front.

**This** [knowledge about the readiness of the Soviet forces to enter the war] **was the carefully considered American strategy as Mr Truman has explained to me.**<sup>82</sup> (*emphasis added*)

Truman had worked out his strategy in such a way that in case the first atomic bombing failed to bring about prompt surrender, the shock of the Soviet entry into the war would ensure it. Then by employing the second atomic bomb immediately after the Soviet entry, he was hoping he could still corner the credit by claiming that it was the atomic bombing that forced the end. For this reason alone he was keen on the Soviets joining the war—but **after** the first atomic bomb was dropped.

It was for the same reason that the American military staff held meetings with their Soviet counterparts on July 24 and 26, 1945, at Potsdam. The primary purpose of the meeting was ostensibly:

to co-ordinate strategy in the Far East, an important step toward bringing Russia into the war on our side.<sup>83</sup>

But interestingly, it was on July 24 that the U.S. leadership sent out the order to drop the atom bombs, followed by the ultimatum to Japan on July 26 (*see Section 2 notes 33 and 34*). It is rather strange that although they were trying to co-ordinate their strategy in the Far-East, the American leaders concealed from the Soviets the unilateral steps they had already undertaken or were about to undertake in this regard on those very days!

It now turns out that the aim of the Americans in holding the meeting was primarily to learn from the Soviets the exact plans regarding their entry into the war against Japan. And once the U.S. leadership knew the Soviet plan, they chalked out their own strategy accordingly. They also took care not to accord any importance to the likely Soviet role in forcing Japan to surrender. Therefore, when on July 29, 1945, Stalin suggested that the United States, along with the other allies, formally

request the Soviet Government to join the war against Japan, Truman flatly refused to comply. "I did not like this proposal for one important reason", recalls Truman. "I saw in it a cynical diplomatic move to make Russia's entry at this time appear to be the decisive factor to bring about victory", he added.<sup>84</sup>

**Truman's fear really betrays the truth! His apprehension that the Soviets might claim credit for ending the war, clearly shows that he was fully aware that a Soviet entry into the war might actually end it.** In addition, the U.S. leaders probably feared that any such recognition of the Soviet role in ending the war might strengthen the claims of the Soviet Union to have a say in the reorganisation of Japan after the war. But Truman was, of course, "determined" he "would not allow the Russians any part in the control of Japan".<sup>85</sup>

Nevertheless on July 31, 1945,

Truman informed Stalin of the text of the letter which he was willing to send to him, suggesting reasons which the Soviet Government could give for entering the war against Japan...<sup>86</sup>

Truman himself later proudly claimed that this strategy—using the Soviet Union as a shock force to end the war but, at the same time, not allowing her any say in the reorganisation of Japan—had been a great success. In an interview with Dean Acheson (*U.S. Secretary of State 1949-1953*) on February 17, 1955, he said:

**One of the main objectives of the Potsdam Conference [was] to get Russia in as quickly [into the war] as we could and then to keep Russia out of Japan—and I did it.**<sup>87</sup>

Soviet historians, too, recognise that this was one of the major objectives of the American policy. According to them:

On the one hand, the United States would have liked the U.S.S.R. to join the war against Japan, and, on the other, it did not want Soviet participation in resolving problems of Japan's post-war organization. Trying to establish its own undivided control over Japan's post-war development the U.S. Government resorted to atomic blackmail...<sup>88</sup>

**It was, therefore, clear to American leaders that either a change in the surrender terms or a Soviet declaration of war would certainly force Japan, which was on the verge of surrender,**

to capitulate immediately. Hence, their decision to use the atom bomb was made against the best intelligence and military advice which indicated there were other ways to end the war.

## **2.12 JAPAN'S DECISION TO SURRENDER**

The Japanese at first could not make out what actually happened at Hiroshima on August 6. It was only from President Truman's radio announcement the next day that they learnt the truth. According to Kase's account, when the announcement came:

We [in the Japanese Foreign Office] were staggered....But the Army, as ever, was a stranger to common sense....They even went to the length of forbidding the press to mention the atom bomb lest it affect the people's morale.<sup>89</sup>

Later,

When it became no longer possible to suppress the truth, the Army attempted to minimize the destructive power of the bomb. They mobilized the scientists who proved willing tools for hoodwinking the nation.<sup>90</sup>

It may be mentioned that in Japan there were a few nuclear physicists engaged in atomic research at that time. Some of them like Dr Yashio Nishina and Dr Ryokichi Sagane had had their training either in Europe under Niels Bohr and others or at prominent centres in the United States. Therefore, in the words of Arthur Compton:

The Japanese scientists were well aware of the difficulties involved in obtaining fissionable material. After long concentrated effort one such bomb might be built. The Japanese might suppose that it would take similar time to make the second, and then the third. If so, they might believe they could weather these atomic blows.<sup>91</sup>

Indeed, if this was the assessment the Japanese militarists made from the preliminary report submitted by the Japanese atomic scientists, they were not very much off the mark. The Americans were then in no position to mass produce atomic bombs. The scheduled dates on which the first atomic bombs were to be ready, according to official notification, were:

...the first about August 1st, the second about August 6th, and the third by about August 24th and others in September.<sup>92</sup>

Henry Stimson further added that:

The two atomic bombs which we had dropped were the only ones we had ready, and our rate of production at that time was very small. Had the war continued until the projected invasion on November 1 [1945], additional fire raids of B-29's ['conventional' bombing] would have been more destructive of life and property than the very limited number of atomic raids which we could have executed in the same period.<sup>93</sup>

Anyway, the entry of the Soviet Union into the war, in the early hours of August 9, forced the Japanese leadership to come to terms with reality.

"Our military people, frightened out of their wits at the thought of a new war with the Red Army, were willing to pay the heaviest price to prevent it", admits Kase.<sup>94</sup>

Elaborating on this, he said:

Perhaps for a while the effect of the atomic bomb could be minimized by propaganda. But **the massed invasion of Manchuria by the Red Army was impossible to hide from the people. The glacial avalanche from the north stunned GHQ. They knew that the game was up.**<sup>95</sup> (*emphasis added*)

Thus, according to the British historian, F.C. Jones:

The news of war with the Soviet Union, though not by now, entirely unforeseen, nevertheless came as a shattering blow to Tokyo. At the same time it greatly strengthened the hand of those who wished to accept the Potsdam Declaration.<sup>96</sup>

The news of the Soviet declaration of war reached the Japanese Foreign Office, "at about 4 am [on] August 9."<sup>97</sup> The news was then immediately relayed to the Emperor and the Prime Minister. When Prime Minister Suzuki received the news, he, along with Foreign Minister Togo, hastened to the palace. According to Kase:

When he emerged from the audience the Prime Minister told his Private Secretary that he was now determined to see things through and bring about an early cessation of hostilities. It was evident that his remarks reflected the Emperor's desire.<sup>98</sup>

Then from 10 am to 1 pm on the same day the Supreme War Council formally met.

Here Togo proposed to accept the Potsdam Declaration 'in principle'. All were agreed upon that and all were also agreed on making an Allied pledge that the Imperial House should be preserved a sine qua non [an essential condition] of acceptance.<sup>99</sup>

It is important to note that:

It was during the course of this conference that the second atomic bomb was dropped on Nagasaki.<sup>100</sup>

**The above sequence of events make it absolutely certain that it was the entry of the Soviet Union into the war that hastened Japan's decision to surrender.**

On August 10, 1945, Japan conveyed its readiness to surrender on the condition that the Emperor would be exempted from prosecution for war crimes and be allowed to retain his status. The U.S. leadership, which was till then rigid about unconditional surrender, suddenly reversed that stand and readily accepted the Japanese condition. The Soviets, who were at first surprised at the volte face by the Americans, nevertheless raised no objections. The acceptance of the condition by the Allies was then communicated to Japan on August 11. But within the Japanese cabinet, the militarists were not amenable to accepting amnesty just for the Emperor—they insisted on amnesty being bestowed on them too. They continued to press for conditions which would avoid the occupation of Japan by Allied troops and make the Japanese themselves responsible for disarmament and for dealing with war criminals. However, the resistance of the militarists was overcome within four days by the peace-seekers who were ready to accept the conditions acceded to by the Allies. Finally, on August 15, 1945, the Japanese Emperor announced over the radio Japan's decision to surrender.

## **2.13 WAS ATOMIC BOMBING NECESSARY ?**

**"It would be a mistake to suppose that the fate of Japan was settled by the atomic bombs. Her defeat was certain before the first bomb fell and was brought about by overwhelming maritime power", so states Winston Churchill, the Prime Minister of Great Britain during the major part of WW II, in most unambiguous terms.<sup>101</sup>**

This admission by someone who was party to the decision completely exposes the dubious nature of President Truman's pronouncements on the issue. Several others shared this view.

General Douglas MacArthur of the United States Army was one of those who was very critical of the decision. During a press conference, held years later, he admitted: "We did not need the atomic bomb...against Japan."<sup>102</sup>

In the words of one of **General MacArthur's** biographers:

Actually, the general **felt that the use of atomic weapons at that stage 'was completely unnecessary from a military point of view' to compel Japan's capitulation** and said so on several occasions in later years. He was also offended that the Allied leaders had not consulted him prior to issuing the Potsdam Declaration and that the Joint Chiefs had not informed him (or Nimitz) of the existence and planned use of the atomic bombs until shortly before the Hiroshima attack. **If his opinion had been requested before the Potsdam ultimatum, he would have strongly urged an assurance to the Japanese that the Emperor would be retained.**<sup>103</sup> (*emphasis added*)

What is intriguing is the fact that Gen. MacArthur, who was Supreme Commander of the Allied Forces in the South-West Pacific Area during World War-II, was not consulted about the decision to use atomic bombs although the targets that were selected for the bombing fell within the area under his command. This was probably because the U.S. Administration was well aware that Gen. MacArthur had already reached the conclusion in June 1945, that the war would soon end without further military operations. This is evident from the General's reminiscences:

As the end of the Philippines campaign approached [June 1945] plans were considered at my headquarters regarding the future of the war. Captured documents revealed a fatal degree of exhaustion of Japan's heavy and armaments industries....My staff was unanimous in believing Japan was on the point of collapse and surrender. I even directed that plans be drawn "for a possible peaceful occupation" without further military operations.<sup>104</sup>

Moreover, according to yet another biographer of Gen. MacArthur:

with each passing day the General felt surer that peace was very near. Two weeks before Hiroshima, he told Kenney\* that he believed the enemy

would surrender 'by September 1 at the latest and perhaps even sooner'.<sup>105</sup>

*\*(General George C. Kenney, Commander, Allied Air Forces in the Far-East during World War II.)*

A similar opinion was also expressed by **Fleet Admiral W.D. Leahy**, Chief of Staff to Presidents Roosevelt and Truman successively and the top ranking officer in the entire U.S. military hierarchy then. According to him:

**The use of this barbaric weapon at Hiroshima and Nagasaki was of no material assistance in our war against Japan. The Japanese were already defeated and ready to surrender because of the effective sea blockade and the successful bombing with conventional weapons.**<sup>106</sup>

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"That a fleet consisting of eighteen carriers, seven battleships, and dozens of cruisers and destroyers had been able to operate for a long period [between July 6, 1945, and August 15, 1945] always within 400 miles of the Japanese [southern] coast and frequently within gunfire range of it with the loss of only one ship, and had inflicted enormous damage to enemy shipping and industrial plants, shows clearly the powerlessness of the Japanese navy and air forces and the completeness of the blockade."

--- Maj. Gen. Woodburn Kirby (2:121), p.167

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### 2.13.1 Effect of 'Conventional' Bombing

The air offensive against Japan was launched from bases in China on June 16, 1944. But the striking capacity of the Air Force was hindered by supply and other difficulties, and as a result of the takeover of some of the principle air bases in China by the Japanese in September 1944. Thus, effective long range 'conventional' bombing of Japan began on November 24, 1944, the bombers taking off from the Marianas islands about 2000 kms south of Japan.<sup>107</sup> The bombing gradually increased in intensity and from March 1945, onwards incendiary bombs began to be used. The areas attacked were saturated with bombs with a view to causing total destruction. By June 1945, the better part of the Japanese Navy had been sunk and its Air Force had been reduced to conducting a few sporadic *Kamikaze* (suicide) attacks (see Section 2 note 68). With practically little resistance,

the American bombing raids were carried on both day and night striking at targets of choice. How effective these raids were can be judged from the following report.

On March 10, 1945:

...B-29s had dropped two thousand tons of napalm on Tokyo. Huge balls of fire leaped from building to building with hurricane force, creating an incandescent tidal wave exceeding 1800 degrees Fahrenheit. American crews in the last wave of the attack could smell burning flesh below. Some of the fliers vomited. Sixteen square miles of Tokyo were burned to the ground. The number of dead reached **125,000...**<sup>108</sup>

According to another report:

During July [1945] the daily news releases made it plain that Japan was defeated....Forty per cent of the built up area of **66** Japanese cities was destroyed [U.S. Strategic Bombing Survey, Summary Report of the Pacific War, Washington, 1946, P.17]. No nation which had lost the power to retaliate could stand that kind of pounding very long....It was apparent even to headline readers that Japanese resistance could not continue much longer.<sup>109</sup>

Thus, as a result of successful 'conventional' bombing and effective sea blockade, Japan's industrial production came almost to a standstill. Japanese industrialists were, therefore, forced to inform top officials of the Japanese Government of the crisis Japan's industries were facing. Their complaint was:

Our production was finished. We could produce war materials only for a few days more. Many of our factories had been bombed out of existence. Our workers had fled to the hills. But worst of all, we had no raw materials.<sup>110</sup>

### **2.13.2 Most Unwarranted Decision**

As already mentioned, Gen. MacArthur, on the basis of documents captured in the Philippines, had come to the conclusion in June 1945, that Japan was on the point of collapse and surrender. Under the circumstance, **why the U.S. Administration did not find it necessary to elicit the opinion of the General before intervening in the area under his command is rather puzzling.** There is little doubt, therefore, that when the U.S. leadership resorted to atomic bombing they knew fully well that such a horrendous step was not warranted.

**Professor Robert Maynard Hutchins, Chancellor of the University of Chicago** which served as the principal centre of fundamental research in the development of the atom bomb, **firmly opposed the use of the new weapon.** During a discussion on the atomic bomb which was broadcast in the U.S. on August 12, 1945, Prof. Hutchins said categorically:

**At the time this bomb was dropped, the American authorities knew that Russia was going to enter the war. It was said that Japan was blockaded and its cities burned out. All the evidence points to the fact that the use of this bomb was unnecessary. Therefore, the United States has lost its moral prestige.**<sup>111</sup>

Furthermore, the official report of the United States Strategic Bombing Survey has pointed out that:

...the Hiroshima and Nagasaki atomic bombs did not defeat Japan, nor, by the testimony of the enemy leaders who ended the war, did they persuade Japan to accept unconditional surrender.

The Survey's analysts concluded that:

...certainly prior to 31st December 1945, and in all probability prior to 1st November 1945 Japan would have surrendered, even if the atomic bombs had not been dropped, even if Russia had not entered the war, and even if no invasion had been planned or contemplated.<sup>112</sup>

In spite of such overwhelming evidence, proclamations are still being made to the contrary! All such explanations to justify the crime are, therefore, no more than mere attempts to conceal the truth. (*see also Sections 2.16 and 3.16*)

## **2.14 A PREMEDITATED ACT ?**

By the end of November 1944, the successful Allied operations against Germany (including the arrest of its top nuclear physicists) portended that country's imminent collapse and obviated the need for an atomic weapon to counter a similar weapon which Germany had unsuccessfully attempted to build. As a result of these developments in Germany, "Manhattan project leaders thus considered using the bomb in the war in the Pacific and accelerated preliminary planning..."<sup>113</sup>

In fact, official U.S. military history reveals that:

Preparations for the tactical employment of an atomic weapon against Japan began in late March 1944 [some 16 months before it was actually employed]...<sup>114</sup>

This decision was taken in spite of the fact that the Manhattan project leaders knew pretty well that Japan did not have the capacity to produce a similar weapon in the near future. Dr Arthur Compton admits this was so:

Possible new scientific developments in Japan gave us no corresponding concern. This was not because we discounted the competence of the Japanese scientists. It was because the atomic programme as we knew it would be too great an undertaking for Japan's industry.<sup>115</sup>

**But instead of abandoning it, the work on the bomb was actually speeded up after the surrender of Germany!** Recalling this Dr Robert Oppenheimer, who was director of the Los Alamos Lab of the Manhattan Project, said:

**I do not think there was a time when we worked harder at the speed up than in the period after the German surrender.**<sup>116</sup>

According to him:

...the deadline never changed. It was as soon as possible.... After the collapse of Germany, we [the scientists] understood that it was important to get this [the atom bomb] ready for the war in Japan. We were told that it would be very important to know the state of affairs before the meeting at Potsdam at which the future conduct of war in the Far East would be discussed.<sup>117</sup>

To advise the U.S. President on the desirability of employing an atomic weapon and other related matters, an Interim Committee was set up on May 4, 1945. The committee met informally for the first time on May 9, 1945, the day after Germany surrendered (*see Section 3.13 for details*).

### **2.14.1 Selection of Targets**

On May 10, 1945, the Target Committee (a study group set up in March 1945, under the Manhattan Project) also met to decide on the likely targets for the first employment of the A-bomb. Official U.S. military history notes that:

The committee carefully considered various criteria: the maximum range for a loaded B-29 aircraft, the need for visual bombing; likely weather conditions; and expected damage. The last criterion weighed heavily on

the committee, for it pointed up the necessity to **select targets where the bomb would produce the maximum damage** and hence have the profoundest impact upon enemy morale....They also emphasized that **the targets should not have been bombed previously, so the effects might be assessed more accurately.**<sup>118</sup>(*emphasis added*)

The Target Committee came to the conclusion that for maximising destruction, targets for this particular type of bomb must satisfy the following conditions, which in the words of Robert Jungk, were:

a) Since the atomic bomb is expected to produce its greatest amount of damage by primary blast effect and next greatest by fires, the targets should contain a large percentage of closely built frame buildings and other construction that would be most susceptible to damage by blast and fire;

b) the maximum blast effect of the bomb is calculated to extend over an area of approximately one mile in radius. Therefore the selected targets should contain a densely built up area of at least this size;

....It was further resolved that four Japanese cities should be deliberately spared bombardment by the American formations which by 1945 could reconnoiter any target they pleased in Japan with practically no resistance. This deceptive period of grace was granted these four cities so they could be doomed to ruin all the more dreadful by the new bomb.<sup>119</sup>

The four cities finally selected as potential targets by the Target Committee were Kokura, Hiroshima, Niigata and Kyoto. But the inclusion of Kyoto, the ancient capital of Japan and a shrine of Japanese art and culture, was strongly opposed by many officials in the U.S. Administration—particularly by Stimson. The net result was that Kyoto was struck off the list and Nagasaki was included in its place.

However, this change was not appreciated by Brig. Gen. Leslie Groves, head of the Manhattan Project. Later disclosing his extreme displeasure at this step, he wrote:

...I particularly wanted Kyoto as a target because, as I have said, it was large enough an area for us to gain complete knowledge of the effects of an atom bomb. Hiroshima was not nearly so satisfactory in this respect. Consequently, I continued on a number of occasions afterwards to urge its inclusion but Mr Stimson was adamant.<sup>120</sup> (*emphasis added*)

**Brig. Gen. Groves particularly wanted Kyoto precisely because it had at that time a population of over 1,000,000 inhabitants.** On the other hand, Hiroshima was not so satisfactory because its population was only about **350,000** (while in the case of Nagasaki the population was a mere **270,000**)! The selected targets were deliberately spared bombardment by 'conventional' bombs so that the effects of such action would not interfere with the effects of atomic bomb attacks. As a result, these targets remained completely undisturbed by 'conventional' destruction until Hiroshima and Nagasaki met their dreadful fate.

### **HEIGHT OF INHUMANITY!**

**Before the atomic bombing, not only did the U.S. Administration want buildings and other structures in the selected targets to remain intact, but they also wanted the residents to remain in the cities going about doing their daily chores.** They purposely did not forewarn the residents of the impending catastrophe so as to rule out the possibility of the residents evacuating the cities prior to the atomic bombing. However, with regard to 'conventional' bombing the professed policy was quite different. In order to minimize civilian deaths:

During the period [June 17 to August 5, 1945] thousands of leaflets were dropped announcing in advance which cities and towns were to be bombed on certain nights and urging the civilian population to evacuate the target areas. Although only four or five cities were to be actually attacked, the leaflets were dropped over some twelve target areas. Post-war investigation showed that this form of psychological warfare had a considerable effect on the morale of the people in the named cities.<sup>121</sup> *(emphasis added)*

Furthermore, according to Churchill, after the proclamation of the Potsdam Ultimatum:

**We agreed to give every chance to the inhabitants. The procedure was developed in detail. In order to minimize the loss of life** eleven cities were warned by leaflets on July 27 that they would be subjected to intensive air bombardments. Next day six of them were attacked. Twelve more were warned on July 31, and four were bombed on August 1. The last warning was given on August 5. By then the Superfortresses [bombers] claimed to have dropped a million and a half leaflets every day and three million copies of the ultimatum.<sup>122</sup> *(emphasis added)*

However, Arthur Compton has confessed that:

**...Hiroshima had not been given any specific warning. The people were caught unprepared.** An early alert and then an all-clear had been sounded when an earlier weather observation flight had gone over. This was a regular morning occurrence and no sign foretold that this flight would send the radio message, 'target clear, visibility unlimited', which would instruct the 'Enola Gay'\* to strike its primary target. **Men and women were accordingly in the streets, going about their normal business.**<sup>123</sup> *(emphasis added)*

\* *(name of the aircraft which carried the atom bomb)*

**While the population of towns subjected to 'conventional' bombing were given advance warning to evacuate, why was it that no such warning was given to the two cities subjected to atomic bombing? Does it not prove that it was to maximize loss of life that the inhabitants of Hiroshima and Nagasaki were denied a chance to escape?**

## 2.14.2 Recording the Effect

Truman has explained that "to observe and record the effects of the explosion of the bomb" there were specific instructions to ensure that "additional aircraft will accompany the air plane carrying the bomb."<sup>124</sup>

Accordingly,

...the 'Enola Gay'...carried the first [atomic] bomb....A second plane carried instruments for observing the physical effects of the explosion. A third plane was to photograph the bomb's effects.<sup>125</sup>

These steps were again repeated while carrying out the second atomic attack. "To gain complete knowledge of the effects of an atom bomb", as Brig. Gen. Groves described it *(see Section 2 note 120)*, was after all one of the prime objectives!

**The method of selection of targets, the denial of any sort of warning to the inhabitants of the selected targets, and the detailed monitoring of effects of the atomic bombings clearly reveal that the whole exercise was a pre-meditated attempt to demonstrate the destructive power of the atomic weapon on densely built-up and populated areas unspoilt by 'conventional' bombing.** *(A brief account of the "impressive" results has already been given in Section 1)*

## 2.15 THE JUSTIFICATION

What was the compelling urgency that necessitated the hasty use of the atom bomb? The United States could certainly have afforded to give Japan some more time to consider the ultimatum. It could at least have adequately warned Japan of the entirely new kind of weapon the U.S. then possessed and the disastrous consequences of its likely use. What prevented the U.S. leadership from doing so? Why did they choose not to do so?

An entirely spurious argument was used to justify the atomic bombing. It was claimed that at that time thousands of American lives were being lost every day in the war and the only way to end this massacre was to use the A- bomb. According to Arthur Compton, it was in a petition by some scientists working on the Manhattan Project that this plea was first made. The petition supposedly said:

...are we to go on shedding American blood when we have available a means to speedy victory? No! If we can save even a handful of American lives, then let us use this weapon now.<sup>126</sup>

Dr Compton also refers to certain opinions expressed by some other scientists. According to him, they claimed that:

...thousands of men were daily being killed on both sides...we would be guilty of permitting that slaughter to continue if we did not use what power we had to bring the war to a close.<sup>127</sup>

But if the U.S. leadership was really concerned about saving the lives of those thousands of American soldiers, they could have easily achieved this even as early as May 1945 (*see Section 2.2*) by offering the same surrender terms to Japan then as those they readily accepted in mid-August. Why did they not do that? Why did they, instead, decide to prolong the war and sacrifice more American lives? The fact is that:

**the battle of Okinawa was [for the Americans] the last battle of World War II.**<sup>128</sup>

According to the same source:

Organized fighting on Okinawa had lasted eighty three days [from April 1 to June 22, 1945]....The final toll of American casualties [12,500 dead—

mostly in the early part of the battle] was the highest experienced in any campaign against the Japanese.<sup>129</sup>

After June 22, 1945, apart from a few sporadic incidents, American soldiers were never involved in any field battle with the Japanese or anyone else (nor were American civilians under any threat from the Japanese). **THEREFORE THE CLAIM THAT THOUSANDS OF AMERICAN SOLDIERS WERE BEING KILLED EVERYDAY AT THE TIME OF THE ATOMIC BOMBING IS ABSOLUTELY FALSE.** *(Such tales could only have been deliberately spread to prevent the scientists from abandoning the Manhattan Project).* Of course thousands of Japanese were being killed in their home islands as a result of the on-going U.S. 'conventional' bombing. And, it was not out of compassion for the Japanese that the atom bombs were dropped!

It was also argued that an estimated one million American lives would be lost if the U.S. plan to invade the Japanese home islands was carried out as scheduled i.e. between November 1945, and November 1946.<sup>130</sup> To save these precious lives the only option left was to resort to atomic bombing! If this line of reasoning was tenable, then the U.S. leadership could have at least given the Japanese time until the end of October 1945, to respond to the Potsdam ultimatum. Certainly these American lives were not under any threat until November 1945, which was still eleven weeks away at the time of the atomic bombing. **Why, then, were the Japanese not allowed more time to respond to the ultimatum considering the fact that a more moderate section within the Japanese Government was striving for an amicable settlement?** *(see Section 2.4)*

The U.S. leadership has no answer.

Truman advanced yet another line of argument. He claimed that "the order of selection [of targets for the atomic bombing] was in accordance with the military importance of these cities". According to him, he told Stimson that **"the bomb should be dropped as nearly as possible upon a war production center of prime military importance"**. Truman says he also made sure that his instructions were carried out: "Before the selected targets were

approved as proper for military purposes, I personally went over them in detail..."<sup>131</sup>

If these targets were, indeed, such important war production centres, as Truman claims, how were they not subjected to 'conventional' bombardment considering the fact that effective 'conventional' bombing of Japan first began as early as November 1944? (see Section 2 notes 107 and 109) **Why were five centers of "prime military importance" left completely undisturbed for eight long months and spared the disastrous fate that befell 66 other Japanese cities? (see Appendix II) What is of special significance is that the targets selected for the atomic bombing were all among the largest cities of Japan. It may be noted that Kyoto was the fourth largest, Hiroshima the seventh largest and Nagasaki the eleventh largest city of Japan at that time. Kokura occupied the 26th position and Niigata the 31st. (see Appendix III)**

On the other hand, if the military importance of the selected targets was not worth 'conventional' bombardment, why were they chosen as targets for atomic bombing? Therefore, **the purported logic of the claim that the selected targets were "war production centers of prime military importance" is bereft of all common sense.** Truman's explanation was, thus, nothing but a conscious attempt to cover up the real reason behind the choice of the final targets. **The real reason was that the targets selected were those where the demonstrative effects of the atom bombs would be the greatest.**

No wonder Truman did not betray any remorse over his decision. While reminiscing he said repeatedly: "Let there be no mistake about it. I regarded the [atom] bomb as a military weapon and never had any doubt that it should be used."<sup>132</sup> Many years later, Mr Truman added that he had "no qualms" about using the atom bomb and that he had "never lost any sleep over it."<sup>133</sup>

Neither did Churchill express any regrets. According to him:

British consent in principle to use the weapon had been given on July 4 [1945]\*, before the test [at Alamogordo] had taken place. The final decision now lay in the main with President Truman, who had the weapon; but I never doubted what it would be, nor have I ever doubted since that he was right.<sup>134</sup>

\* Churchill's last day in office

(It may be pointed out that Churchill was earlier quoted as having admitted that atomic bombing was not necessary to end the war—see note 101 above. The inference from the two apparently contradictory statements could only be that, although Churchill was aware that atomic bombing was not needed to end the war, he nevertheless became a willing accomplice to the crime out of political considerations).

## 2.16 REACTIONS TO THE ATOMIC BOMBING

The advent of the dreaded nuclear weapon age evoked revulsion among all peace loving people. People across the world, including many atomic scientists who helped build this deadly weapon, were horrified when the disastrous effects of the atom bomb became known—a single atom bomb could annihilate hundreds of thousands of human beings and destroy a whole city! Such reactions were particularly strong in the United States and Great Britain. A review of the reactions there showed that:

**All over the country [the United States], people wrote letters to the editors of their newspapers, protesting the killing of non-combatant civilians in Japan, calling it inhuman, and protesting our disregard for moral values. In Britain, too, where the news of the atomic bomb topped all other news, the letter columns were full of such expressions as 'In the name of humanity, let us stop and ask ourselves where we are marching'.<sup>135</sup>**

Within the U.S. Armed Forces, as already mentioned, **Fleet Admiral W.D. Leahy, reacted strongly against the atomic bombing.** In his reminiscences he wrote:

**The lethal possibilities of atomic warfare in the future are frightening. My own feeling is that, in being the first to use it we had adopted an ethical standard common to the barbarians of the Dark Ages...<sup>136</sup>**

Among the leading statesmen who were deeply moved by the wanton destruction of Hiroshima and Nagasaki was **Mahatma Gandhi.** Deploring the act in no uncertain terms he said:

**I regard the employment of the atom bomb for the wholesale destruction of men, women and children as the most diabolical use of science.<sup>137</sup>**

The atomic bombing was, indeed, the most diabolical use of science. By the attempt to browbeat other nations with its nuclear edge, the right-wing leadership of the United States triggered the

nuclear arms race and, as a result, all of humanity is today forced to live under the constant shadow of an impending nuclear holocaust. (*see also Sections 2.13, 2.13.2 and 3.16*)

But, instead of holding the political decision-makers responsible for the crime, there was a tendency to apportion the blame on to the scientists of the Manhattan Project. Even Fleet Admiral Leahy felt that:

the scientists and others wanted to make this test because of the vast sums that had been spent on the project. Truman knew that, and so did the other people involved.<sup>138</sup>

Leahy's reaction is indicative of the apprehensions many harbour on the role of the scientists in the construction and use of the atomic bomb. A little known fact is that the leading scientists on the atomic bomb project tried their level best (within the confines of the tight secrecy clamped on the Project) to prevent the use of the atom bomb on Japan. Moreover, they proposed that attempts be made to arrive at some kind of international understanding to control the misuse of atomic energy. But all their pleas were contemptuously brushed aside. The role of the scientists during those crucial years is evaluated in the following section.

# 3

## SCIENTISTS AND THE ATOMIC BOMB

### 3.1 EARLY HISTORY

The sequence of events which led to the discovery and subsequent military application of atomic or nuclear energy can be traced to the turn of the 20th century. It all began in 1895 with the almost accidental discovery by the German physicist, Wilhelm Roentgen, of X-rays, a form of short wave-length radiation that can penetrate matter. Shortly afterwards in 1896, the French physicist, Henri Becquerel, while seeking a possible connection between phosphorescence and X-rays, stumbled upon a strange phenomenon, which was subsequently identified as radioactivity. The fascinating phenomenon of radioactivity—a property exhibited by certain elements in nature of spontaneously emitting energy and subatomic particles—intrigued a young Polish student, Maria Skłodowska, alias Marie Curie, who was to emerge as the first great woman physicist.

Marie Curie, who had undertaken the task of identifying all radioactive elements, made what turned out to be a major breakthrough when, in 1898 she, along with the French physicist, Pierre Curie, discovered a new element—Radium, the most powerful radioactive element. The peculiar property exhibited by radium astonished scientists, many of whom veered around to the view that it was impossible to understand the rays emitted by radium unless they originated from within the atom. The urge to unravel this mystery led to the intensive study of the interior of the atom. Ernest Rutherford, a scientist from New Zealand, undertook the task in 1901, and was one of the pioneers in the field of atomic research.

By 1911, Rutherford revealed that an atom, the smallest unit of an element, consists of a positively charged central core, the

nucleus, surrounded by one or more electrons or negatively charged elementary particles which revolve around it. (The existence of the electron was earlier established by the British physicist J.J. Thompson in 1897). Nearly the entire mass of the atom was in the nucleus, the radius of which, when compared to the radius of the electron's orbit, was abysmally small. The mass of the positively charged particle—named proton by Rutherford in 1920—was nearly 2,000 times that of an electron.

The scientists gradually understood that it takes tremendous energy to hold positively charged particles (since like charges repel) in the central core of the atom together. The energy required to hold these particles together in the nucleus is the 'binding energy' of the atom.

In 1905, Albert Einstein published his work on the theory of special relativity where he established the equivalence between mass and energy. According to this theory, mass was essentially a highly concentrated form of energy and even a small amount of matter would produce tremendous quantities of energy. Einstein deduced that the energy of a moving body is related to its mass by the equation  $E=mc^2$ , where **E** is the energy, **m**, the mass of the body, and **c**, the speed of light. If **c** is expressed in centimetres per second, and **m** in grams, then **E** will be given in **ergs**. Since the velocity of light is  $2.998 \times 10^{10}$  cms per sec, the Einstein mass—energy equation can be written as:

$$E \text{ (ergs)} = m \text{ (grams)} \times (2.998 \times 10^{10} \text{ cms per sec})^2$$

*(An **erg** is the work done when a force of 1 dyne acts over a distance of 1 cm. The dyne is the force which, acting on a mass of 1 gram, gives it an acceleration of 1 cm per sec sec. In atomic studies, however, it has become the practice to express energies in electron volt units, rather than in ergs. The electron volt is the energy required by any charged particle carrying a unit (electronic) charge when it falls through a potential of 1 volt, it is equivalent to  $1.603 \times 10^{-12}$  erg)*

By the early 1920s, there were three major centres in the world engaged in atomic research: Cambridge (Britain) under Ernest Rutherford; Copenhagen (Denmark) under Niels Bohr; and Gottingen (Germany) under the trio—Max Born, James Franck and David Hilbert. Physicists from over a dozen other countries including U.S.A., U.S.S.R. and Japan worked at one time or the

other at one of these centres. But the tranquil atmosphere of these academic centres was soon shattered by the impact of the shocking political developments that gripped Europe in the 1930s.

### **3.2 FASCIST ONSLAUGHT IN EUROPE**

By the end of the 1920s, the western world was facing a severe economic crisis. This was especially true of Germany which was one of the worst affected. Not yet having recovered from the effects of World War I, it was beset with profound political and social unrest. To check this alarming trend, vested economic interests in Germany—military industrial giants like Krupp, Thyssen, I.G. Farben, Siemens, etc., who were financially propped up by big French, British, and U.S. banks—encouraged fascist forces to unleash terror.

Thus, Jews as a community and Communists as a political force increasingly came under widespread attack—even eminent scientists were not spared. The state of affairs degenerated to such an extent that a small group of disgruntled physicists owing allegiance to the Nazis led by two Nobel Laureates—Philip Lenard and Johannes Stark—attempted to dismiss, under the summary heading of "Jewish physics", all studies based on the theories of Albert Einstein and Niels Bohr. They tried to invent, instead, what they called "German physics".

Hitler's seizure of power on January 30, 1933, provided the signal for the final onslaught. Hundreds of scientists, mainly of Jewish origin, were summarily dismissed from their posts and were left with no alternative but to emigrate (in fact, that way they were lucky to escape alive). The United States, which then had the biggest infrastructure for scientific research, was able to attract the largest number of persecuted scientists—especially after Albert Einstein himself moved from Berlin to Princeton in September, 1933.

**"MINOR NAZI"!****THE CASE OF FRITZ THYSSEN**

"Distressed at what he viewed as the socialistic drift of Germany into economic chaos during the 1920s, Fritz Thyssen became an early backer of Adolf Hitler and the Nazi Party. It was Thyssen who organized the meetings of German industrialists on Jan. 26, 1933, at which Hitler outlined his program. During Hitler's drive for the German Chancellery, Thyssen contributed 3,000,000 marks. Hitler then rewarded his financial sponsor by making Thyssen a member of the German Economic Council and a Prussian state counsellor.

"But Thyssen backed Hitler solely as a nationalist and anti-Communist, viewing Fascism as the only bulwark against Bolshevism. When Hitler led Germany into the war and began persecuting Jews and Catholics (Thyssen was a Catholic), the industrialist broke with the Nazis and in 1939 fled to Switzerland. Hitler promptly confiscated the Thyssen fortune (about \$88,000,000) and stripped Fritz Thyssen of German citizenship. Thyssen later wrote a scathing denunciation of Nazism entitled "I Paid Hitler."

"....Tried and convicted by a German denazification court of being a "minor nazi," Fritz Thyssen was ordered to turn over 15 per cent of his property to a restitution fund for victims of Nazi persecution."

—*The New Encyclopedia Britannica, University of Chicago, Micropedia, ed. 1985, Volume 11, p.751*

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**3.3 BREAKTHROUGH IN ATOMIC RESEARCH**

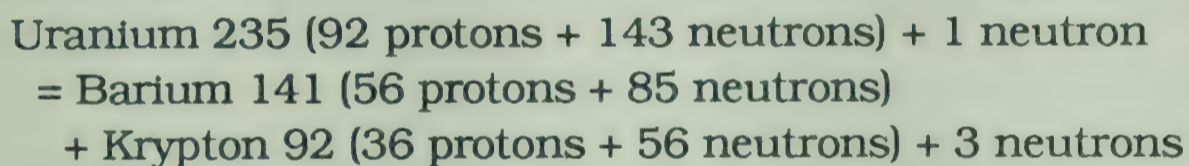
During this period of turmoil, steady progress was being made in the field of atomic science. Two notable developments were the discovery of the neutron by James Chadwick at Cambridge (Great Britain) in 1932 and the splitting of the atom by Otto Hahn and Fritz Strassman in Berlin (Germany) in December 1938. Two other scientists who manifested a great interest in the study of atomic nuclei were Irene Curie (daughter of Marie and Pierre Curie) and Frederic Joliot of France. The contribution of the Joliot-Curies to the discovery of the neutron and nuclear fission was quite substantial.

The neutron was recognized as an electrically neutral elementary particle located in the core of the nucleus with almost

the same mass as the proton. With the discovery of the neutron, the understanding of the atomic structure was almost complete. However, what was to be soon acknowledged as the biggest breakthrough in the field of nuclear physics was, of course, the achievement of Hahn and Strassman.

Hahn, who was not altogether confident about the discovery, first communicated the results to his friend and former colleague Lise Meitner at Stockholm. (Meitner, former head of the department of nuclear physics at the Kaiser Wilhelm Institute in Berlin and a native of Austria had to escape from Germany to Sweden soon after Hitler overran Austria on March 11, 1938). Meitner along with her nephew Otto Frisch, a student at Bohr's Institute for Nuclear Physics at Copenhagen, after analysing the results of the Hahn—Strassman experiment arrived at the conclusion that the discovery at Berlin was of momentous significance.

According to the findings of Hahn and Strassman, when an atom of uranium, the heaviest of the 92 known natural elements, was bombarded by a neutron, it split into two atoms of lighter elements besides liberating three neutrons in the process.



But Meitner and Frisch noticed that the sum total of the mass of the two lighter atoms so formed (including the neutrons liberated) was less than the mass of the original, heavier atom and the interacting neutron, which indicated that a certain amount of mass had been converted into energy.

$$\begin{aligned} \text{Change in mass} &= [\text{mass of 1 Uranium atom} + \text{mass of 1 neutron}] \\ &\quad - [\text{mass of 1 Barium atom} + \text{mass of 1 Krypton atom} + \text{mass of} \\ &\quad \quad 3 \text{ neutrons}] \\ &= [235.0427 + 1.00866] - [140.9129 + 91.897 + 3 \times 1.00866] \\ &= 0.21537 \text{ a.m.u (atomic mass unit)} \end{aligned}$$

Einstein's formula  $E=mc^2$  had already established that 1 a.m.u when converted into energy would be equivalent to **931** million electron volts. Therefore, with the help of this formula, Meitner

and Frisch calculated the amount of energy released by the splitting of a uranium atom. The conclusion was almost unbelievable: the amount of energy released was of the order of **200,000,000** electron volts per atom, an energy about **5,000,000** times as great, weight for weight, than is obtained from the burning of coal. Thus, it was discovered that through nuclear fission, i.e. by the division of nuclei, it was possible to release vast quantities of energy.

The amazing news, which had not yet been publicised, was first brought to the U.S. by Professor Niels Bohr, who arrived there from Copenhagen on January 16, 1939 on a three month teaching assignment at Princeton University. Bohr was informed of the discovery by Otto Frisch himself just minutes before Bohr set sail for the U.S. Therefore, immediately upon arrival in the U.S., Bohr set out to explore the implications of this new discovery. Under his direction, two of his former students, Enrico Fermi and Leo Szilard, carried out experiments and proved conclusively that under certain definite conditions it was possible to sustain a chain-reaction (i.e. sustained nuclear fission) which would release energy millions of times greater than any previously known source. They made this disclosure on March 16, 1939.

### ***Political Significance Of The Discovery:***

On that same day there was further shocking news from Europe: Hitler had annexed Czechoslovakia. People everywhere were petrified by this report which suggested that the threat of another world war breaking out had become more imminent. However, only Leo Szilard, the eminent physicist from Hungary, drew almost immediately political conclusions from the new scientific revelation. Szilard, who had been hounded by fascist forces from his homeland and had emigrated to the U.S. by then, perceived with shocking clarity a possible race in the production of atomic armaments. Szilard's reasoning was based on the fact that although Hitler had driven out some of Germany's best talent, an impressive group still remained. There was hardly any doubt that the nuclear physicists in Germany would know as much as their counterparts in the U.S. and elsewhere about the terrifying prospect of the latest developments in this field. If

Hitler was aware of this, it was unlikely that he would spare any effort to acquire the weapon which would ideally fit into his grandiose scheme of conquering the world. So there was a strong suspicion that it was the euphoria about the possibility of acquiring and employing such dreadful weapons, which was prodding Hitler to indulge in reckless provocation.

### **3.4 EFFORTS TO EXPEDITE ATOMIC RESEARCH**

The disturbing developments in Nazi Germany were greatly worrying to the immigrant scientists in the U.S. Therefore, taking the initiative, Szilard and his colleague Enrico Fermi (the Nobel Laureate who had escaped from Fascist Italy), contacted various officials in the U.S. Administration and tried to impress upon them the importance of the latest researches in atomic science and their possible effects on the techniques of war. But their efforts proved abortive, more so because they did not have access to any really influential authority. Finally, after consultations with other colleagues, it dawned upon them to take the help of Albert Einstein and Alexander Sachs. Both Einstein and Sachs, when contacted in this regard, readily agreed to co-operate.

Sachs, a renowned scholar and a good friend of the U.S. President, Franklin Roosevelt, agreed to hand over to the President a letter from Einstein warning him of the danger posed by a possible German breakthrough in the field of atomic science. The letter was to include, among other things, a proposal for acceleration of atomic research in the United States and the urgent need for appropriate financial backing.

Sachs succeeded in handing over Einstein's letter of August 2, 1939, and Szilard's covering note to President Roosevelt only on October 11, 1939, by which time war had already broken out in Europe. After discussing the gravity of the situation with Sachs, President Roosevelt immediately authorised the setting up of an Advisory Committee On Uranium for co-ordinating atomic research and for taking adequate steps for exploiting its potential. However, even Roosevelt's manifest interest scarcely accelerated its execution. It was subsequently known from news which leaked out from Germany that on September 26, 1939, two

weeks before Sachs managed to meet Roosevelt, nine top German nuclear physicists were called to the Army Weapon Department in Berlin to found the 'Uranium Society'. The express purpose of this society, it was suspected, was to devise methods to tap the military potential of atomic energy.<sup>1</sup>

### 3.5 MANHATTAN PROJECT

There was a delay of at least two years in implementing Roosevelt's directive to coordinate atomic research due to short-sightedness and bureaucratism, and the suspicion of foreign scientists. It was only after the formal entry of the United States into the Second World War on December 7, 1941, following the Japanese attack on Pearl Harbour, that substantial financial and technical resources for the construction of an atomic bomb were actually sanctioned.

The delay was also partly due to the fact that the scientists had to achieve quite a few scientific and technical breakthroughs which were necessary preliminaries for such a major undertaking. The highly secret project, code-named 'Manhattan Engineering District', finally came into existence on September 17, 1942 when Brig. Gen. Leslie Groves of the U.S. Army was designated to take charge of it.

The task was a gigantic one. It involved the setting up of a few large-scale plants and several smaller ones. About **125,000** persons were employed during peak construction and over **65,000** individuals were engaged in operating the plants. Laboratories at several universities and industrial establishments contributed materially in carrying on research and in developing special equipment, materials and processes for the project. Certain manufacturing units were located in Canada. In all, the project incurred an expenditure of some two billion dollars.

From the outset, extraordinary secrecy and security measures surrounded the project. While several thousands of persons were associated with the programme, none but the top (some **400** odd) scientists and a few highly placed persons in government knew of the ultimate objective. Even among the top scientists only a handful knew the entire manufacturing process—a precaution

undertaken to guard against any major leak of vital information. All this was achieved by completely compartmentalising the various assignments.

### **Similar Development In Great Britain:**

It may be mentioned that in Britain, independently and about the same time and in similar fashion as Leo Szilard in the U.S., Prof. George P. Thomson had alerted the government to the danger. Faced with the threat of another world war, the British Government lost no time in taking appropriate steps.

According to Margaret Gowing, historian and archivist, United Kingdom Atomic Energy Authority:

Development of the atomic bomb had begun in Britain and America in the fear that Germany might make one first. It was these fears that gave the work of the Maud Committee\* a touch of frenzied haste.<sup>2</sup>

*\*(Maud Committee: a sub-committee on the uranium bomb set up in Britain in April 1940, within the Ministry of Aircraft Production)*

As a result, at least up to the beginning of 1942, research work in Britain had advanced at a much faster rate than in the U.S. In fact by November 1941, Britain had even set up its own atomic bomb project code named "Tube Alloys". The progress so impressed the United States, which was informed of the matter, that it approached Great Britain for collaboration. But for all practical purposes, full and effective steps were taken in this direction only after the two sides signed an agreement on August 19, 1943, at the Quebec summit.

### **No Attempt To Involve Soviet Scientists:**

Interestingly, no similar attempt was made to involve the Soviet scientists despite the fact that Soviet scientists had already expressed their desire to collaborate with scientists of other nations in the fight against Fascism (*see box below*).

A RAND Corporation study has revealed that:

**...the Russians seem to have been at least equal with the West in nuclear physics at the time when the United States and Great Britain decided to develop atomic energy at a greatly accelerated tempo. But the Kapitsas and the Kurchatovs of Russia were not invited to join the Manhattan District Project, while the British were.<sup>3</sup>**

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APPEAL FOR A JOINT STRUGGLE AGAINST FASCISM  
BY TWENTY WORLD FAMOUS SOVIET SCIENTISTS  
TO SCIENTISTS OF THE WORLD

"Fascism is a mortal menace to culture and science. In his attempt to conquer Nature the scientist has been moved primarily by the desire to benefit culture and humanity whereas Fascism has employed science for devastation and destruction. On us scientists rests the duty of finding means to resist the Fascists. We Soviet scientists are employing all our knowledge and all our endeavour to secure the early defeat of Hitler's hordes. But we know that this can be secured only by the concerted struggle of all the peace-loving nations, all the progressive people of the world. The scientists of the world must devote all their energies and all their knowledge to fight against the most horrible tyranny history has ever known, against Hitlerism".

Quoted in *Daily Telegraph*, London, Oct. 13, 1941.  
(see Margaret Gowing (2:44), p.88)

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***Not The Doing Of Any One Man':***

Among the notable scientists associated with the Manhattan Project were Marcus Oliphant (Australia), Otto Frisch (Austria), James Chadwick (Britain), Niels Bohr (Denmark), Han Von Holban (France), James Franck (Germany), Leo Szilard (Hungary), Enrico Fermi (Italy), Samuel Gaudsmit (The Netherlands), Joseph Rotbalt (Poland) and Robert Oppenheimer (U.S.A.).

The alarm which the scientists, especially those of European origin, then felt at the possibility that Hitler might be the first to possess so terrifying a weapon impelled them to devote themselves with the greatest determination to the project which, as it turned out, was a very challenging one. Thus, the harnessing of nuclear energy, as Robert Oppenheimer later wrote,

is not the doing of any one man; it involved the collaboration of scores of scientists from many different lands, though from first to last the deeply creative and subtle and critical spirit of Niels Bohr guided, restrained, deepened, and finally transmuted the enterprise.<sup>4</sup>

### **3.6 NIELS BOHR—THE GUIDING SPIRIT**

Initially Niels Bohr was not associated with the Manhattan Project. In April 1939, when his three month assignment in the U.S. came to an end, against all advise, Bohr returned to Copenhagen to maintain his institute and also help all those scientists seeking refuge from fascist oppression elsewhere in Europe. Although, Bohr had not discounted the theoretical possibility of building atomic weapons even before he left for home, he was of the view that the practical problems associated with any such attempt were indeed very formidable and hence well beyond the means of any country or group under the conditions which existed then.

On April 9, 1940, within a year of his return, the Nazis invaded Denmark and took over the country without encountering any resistance. Bohr, who was half-Jewish, was then in personal danger but still refused to leave Copenhagen. During the next two years, although the Nazis did not attempt to interfere with his work, they kept a close watch on his institute and, thus, practically cut off Bohr's contact with the outside world.

But this state of affairs did not last long. Unable to control the increasing unrest of the people, the Nazis imposed martial law in Denmark on August 28, 1943. When the likelihood of his arrest became almost certain, Bohr, with the help of the British secret service, made a dramatic escape to Britain via Sweden. It was only after his arrival in Britain on October 6, 1943 that he became aware of the progress made in the atomic bomb projects—"Tube Alloys" and "Manhattan"—and of the several scientific and technical breakthroughs which had already been achieved. As it turned out, most of the breakthroughs were based on Bohr's theoretical formulations. Thus, even in his absence, Bohr played a pioneering role in putting the atomic projects in motion.

Niels Bohr was then absorbed as a consultant to the British "Tube Alloys" project. As a result of the collaboration agreement, by early December, 1943, Bohr left for the U.S. where he emerged as the guiding spirit behind the Manhattan Project.

Bohr was destined to play an equally vital role in another sphere: to attempt to bring the twentieth century world on par

with twentieth century science. Thus, according to Victor Wiesskopf, a Nobel Laureate and Manhattan veteran:

It was through him [Bohr] that what one might call the political movement of the scientists started. It is of course much more than that, it is a new kind of thinking by a group of people... placed in very important positions in this world.<sup>5</sup>

### 3.7 NIELS BOHR'S CONCERN

More than a year before the first atomic test, Niels Bohr was stirred by the political problems involved in the discovery of the new power. He visualised the prospect of a competition between Allied nations for building nuclear weapons, which would constitute a perpetual menace to human security. To forestall such a competition, Bohr felt that an agreement among the principal powers—U.K., U.S.A. and U.S.S.R.—on the control and use of atomic energy was essential **before** completion of the atom bomb or its actual employment in war. As a first step, Bohr was of the view that the Soviet Union, which had made significant advances in the field of nuclear physics, should be taken into confidence.

Bohr conveyed his feelings to the U.S. President Franklin Roosevelt through one of the advisors of the president, Justice Felix Frankfurter, a former dean of the Harvard Law School. The same was conveyed to Prime Minister Churchill through the British ambassador in Washington, Lord Halifax, and Sir John Anderson, the cabinet minister responsible for the atomic bomb project from the British side. While Frankfurter, Halifax, Anderson, and Roosevelt broadly agreed with Bohr's proposal, Churchill was infuriated at the very idea.

After receiving word from Roosevelt through Frankfurter that he should first discuss the matter with Churchill, Bohr who was not aware of Churchill's reaction, went to Britain to meet the Prime Minister in person. Churchill, who was in no mood to meet Bohr, made him wait in London for nearly a month before granting him an interview on May 16, 1944. The meeting was an utter disaster. Ruth Moore, one of Bohr's biographers, described the whole episode thus:

Bohr walked through the famous doorway of No.10 Downing Street with the highest of hopes. The Prime Minister on the other hand, met the famous scientist with the most meager of expectations.... Upto the point of the Bohr—Churchill meeting the prospect could not have been more promising. The head of the British atomic energy project, the president of the Royal Society, the British Ambassador to the United States, the American president and one of his chief advisors, and thus most of the men of power and decision in government and science who knew about the bomb were willing to consider a new approach as demanded by a new force in the world. They were convinced by Bohr that mortal danger could lie in the alternative, a nuclear arms race. **Among the few who knew that a new order was being created and had the power to influence it, only one, only Churchill, rejected even an attempt at change.**<sup>6</sup> (*emphasis added*)

Bohr returned to the U.S. disappointed, but he did not lose hope. He drew up a detailed seven-page memorandum, which among other things, pointed out that:

...a weapon of an unparalleled power is being created which will completely change all future conditions of warfare....Unless, indeed, some agreement about the control of the use of the new active materials can be obtained in due time, any temporary advantage, however great, may be outweighed by a perpetual menace to human security....In view of these eventualities the present situation appears to offer a most favorable opportunity for an early initiative from the side which by good fortune has achieved a lead in the efforts of mastering mighty forces of nature hitherto beyond human reach. Without impeding the immediate military objectives, an initiative, aiming at forestalling a fateful competition, should serve to uproot any cause of distrust between the powers on whose harmonious collaboration the fate of coming generations will depend.<sup>7</sup>

On July 3, 1944, Bohr sent copies of the memorandum to both President Roosevelt and Prime Minister Churchill. Soon afterwards, on August 26, 1944, Roosevelt invited Bohr to discuss the memorandum. The discussion was a fruitful one. Describing the event, Margaret Gowing said:

The President could not have been more friendly to the Professor or more open and frank in his discussion of the political problems raised by the bomb. He said an approach to Russia must be tried and that it would open a new era of human history.... The President also agreed about the urgency of the whole business and told Bohr that he was shortly to meet Mr. Churchill and would discuss with him an early invitation to the Russians. He said the Professor should feel entirely free to communicate

with him at any time on the subject and that he would like to see him again after the meeting with Churchill.<sup>8</sup>

The President, who was aware of the disastrous outcome of the Bohr—Churchill meeting, was scheduled to meet with Churchill in Quebec the following month. That meeting was to take place on September 19, 1944.

Bohr thought the best way to broach the subject with the Soviet leaders was through the Soviet scientists. His faith in this approach was based on the fact that Soviet scientists had collaborated with scientists abroad and published their findings freely in noted scientific journals until the years just before the war and even then the ties between them and other scientists were never completely broken. Bohr felt sure that if the Soviet scientists were given a broad outline of the project they would immediately realise how much was at stake and would be able to convince their political leaders. According to Margaret Gowing:

**Bohr was sufficiently encouraged by his talk with Roosevelt to have a shot at a draft letter to [Pyotr] Kapitsa [the renowned Soviet physicist] on these lines, and he held himself in readiness to go to Russia.<sup>9</sup>**

However, Bohr's high hopes were to be rudely dashed.

### **3.8 BOHR SUBJECTED TO VICIOUS ATTACK**

At the Quebec meeting, Churchill, who had earlier treated Bohr with contempt, now went out of his way to malign and discredit Bohr in the eyes of the President. Churchill started a tirade against Bohr and insinuated that Bohr was basically acting on behalf of the Soviet Union. An impression was sought to be created that Bohr was unreliable and that it was necessary to keep a close watch over his activities. By playing upon this theme Churchill succeeded in casting aspersions on Bohr's integrity to such an extent that Roosevelt's confidence in Bohr was thoroughly shaken. As a result, Roosevelt, who only a month earlier had shown considerable interest in Bohr's proposal, now reluctantly set it aside. Thus, in the end, Churchill's craftiness carried the day. Churchill, the arch conservative, later told his scientific advisor, Lord Cherwell, how strongly he resented Bohr:

The President and I are much worried about Professor Bohr. How did he come into the business?...He said he is in close correspondence with a Russian professor, an old friend of his in Russia to whom he has written about the matter and may be writing still. The Russian professor has urged him to go to Russia in order to discuss matters. What is all this about? **It seems to me Bohr ought to be confined or at any rate made to see that he is very near the edge of mortal crimes.**<sup>10</sup>  
(*emphasts added*)

The incident which Churchill tried to take advantage of was this: Niels Bohr, while in London in April 1944, received a letter from Pyotr Kapitsa, the noted Soviet physicist, who had spent a number of years at Cambridge in the august company of Rutherford and Bohr among others. The letter, initially sent to Sweden soon after Bohr's escape from Denmark in September 1943, was finally delivered to Bohr in London some six months later. Kapitsa's letter to his close personal friend, was essentially an invitation to Bohr and his whole family to settle in the Soviet Union, where Bohr would be given all help he wanted for carrying on his scientific work in association with Soviet physicists. However, Bohr, **with the full knowledge of the British secret service**, politely declined the offer. But, Bohr had little doubt as to why his expertise was in as much demand in the Soviet Union as in Britain and the U.S. This realisation prompted him to initiate a move to strengthen confidence-building measures between the two sides and thereby prevent a nuclear arms race. Under the circumstances, Churchill's attempt to impute questionable motives to the above correspondence was, to say the least, highly mischievous.

However, Lord Cherwell, Sir John Anderson, Dr Vennevar Bush and others staunchly defended Bohr and foiled all attempts to humiliate the renowned scientist whom Sir Henry Dale, President of the British Royal Society, had in May 1944, described to Churchill as probably the "first among all the men of all countries who are now active in any department of science."<sup>11</sup>

Margaret Gowing concurs with this view:

Bohr's honour and integrity were of course as great as his prowess in physics. His friends Cherwell, Anderson, Halifax, and Campbell rushed in to defend them and to say that Churchill was, in effect, talking

nonsense. Cherwell sent a strong reply to Churchill telling him how Bohr had come into the business...

Furthermore, according to Ms Gowing:

Cherwell had also repeated these views to Roosevelt himself who had broached the subject in the presence of Dr. Bush. Bush confirmed Cherwell's opinion in all particulars of which he had any knowledge.<sup>12</sup>

Whether the direction Bohr advocated could have averted the cold war and prevented a nuclear arms race, no one can say. But, as Ruth Moore commented:

It can only be said that when **his counsel of fruitful international co-operation was rejected, primarily through the agency of one man—Winston Churchill**—exactly the dangers Bohr had foreseen did come to pass.<sup>13</sup> (*emphasis added*)

### 3.9 REACTIONS OF OTHER SCIENTISTS

Independently several influential scientists on the Manhattan project had come to share Bohr's conviction that the Soviet leaders must be told about the atom bomb. On September 19, 1944, the very day Roosevelt at the instigation of Churchill rejected Bohr's proposal, two of America's best known scientists, Dr Vennevar Bush, Director of the Office of Scientific Research and Development (OSRD), and Dr James Conant, Chairman of the National Defence Research Committee (NDRC), sent a joint letter in this regard to Henry Stimson, the U.S. Secretary of War. This letter was followed on September 30, 1944, with a more elaborate memorandum, which essentially emphasised that: (1) the present advantage of the U.S. and Great Britain in the nuclear field was temporary; (2) American security cannot possibly be maintained by secrecy; (3) the best chance for forestalling a fatal atomic arms competition between nations should lie in a free interchange of all scientific information under an international office.<sup>14</sup>

On the British side, Sir John Anderson, as early as March 1944, had mooted a similar plan, which, in the words of Margaret Gowing, was as follows:

Anderson told Churchill there were two alternatives. There might be a particularly vicious form of armaments race in which at the best the United States and United Kingdom combined would, for a time, enjoy a precarious and uneasy advantage. Or a form of international control

must be devised. This would be a matter of the greatest difficulty, but, urged Anderson, 'no plan for [a] world organisation which ignore[s] the potentialities of Tube Alloys [British code for the atomic bomb project] can be worth the paper on which they are written. Indeed it may well be that our thinking on these matters must now be on an entirely new plane. I am myself convinced that we must work for effective international control'....If it was decided to work for international control, wrote Anderson, there was much to be said for communicating to Russia in the near future the bare fact that the Americans expected by a given date to have this devastating weapon and for inviting them to collaborate in preparing a scheme for international control. If the Russians were told nothing they would learn sooner or later what was afoot and might then be less disposed to co-operate. There was little risk that Russia, if she chose to be unco-operative, would be assisted in the development of her own plans by such a communication.<sup>15</sup>

Another scientist to express concern was Dr Zay Jaffairs, a consultant to the Manhattan Project. In a report titled "Prospects on Nucleonics", which he submitted to Dr. A.H. Compton, Director of the Metallurgical Project, on November 18, 1944, Dr Jaffairs outlined the importance of a concerted effort by all nations to control at least the means of nucleonic warfare.<sup>16</sup>

While discussions on these lines were going on at the Manhattan Project, changes were taking place on the war front in Europe.

### **3.10 COLLAPSE OF GERMAN ATOMIC PROJECT**

Towards the end of 1944, the Allied armies were closing in on Germany from all sides. On the Western front on November 25, 1944, the city of Strassburg fell to advancing American forces. According to information, several laboratories attached to the University of Strassburg were engaged in atomic research. Members of the special detachment for the purpose of collecting specific information on German atomic armament (code named ALSOS), which included prominent scientists such as Samuel Gaudsmit, were among the first to march into town. The ALSOS team conducted a thorough search of the various laboratories and rounded up four top German physicists—all members of the 'Uranium Society'. It was undoubtedly clear from the papers found in their possession that the Germans, who had supposedly

been ahead in atomic research, were, in fact, at least two years behind the Allies in this field. Explaining these developments Brig. Gen. Leslie Groves said:

The information gained there indicated quite definitely that Hitler had been appraised in 1942 of the possibilities of a nuclear weapon. Nevertheless, all evidence from Strassburg clearly pointed to the fact that, as of the latter part of 1944, the enemy's effort to develop a bomb were still in the experimental stages, and greatly increased our belief that there was little probability of any sudden nuclear surprise from Germany.<sup>17</sup>

Similarly, other reports of the ALSOS agents, who had captured from various outlying German cities all the other members of the 'Uranium Society', including Werner Heisenberg, the top-most German atomic expert, made it clear that the Germans were really far from possessing any atom bombs.

The ALSOS mission's reports of the non-existence of a German atom bomb were, of course, top-secret. But no security measure could stop this wonderful news from reaching the scientists on the Manhattan project. The report placed the atomic scientists in a dilemma, for the assumption on which they had started work was no longer valid. Many thought that further work on the atom bomb was not politically and morally justified considering that the likelihood of a similar threat from the Japanese had already been ruled out (*see Section 2 note 115*). It is now known that on this account at least one of the leading scientists actually quit the Manhattan Project in protest.

### **3.11 VALIDITY OF U.S. PROJECT QUESTIONED**

After forty years of silence, Joseph Rotbalt, an emigre from Poland and a member of the British team on the Manhattan Project, made a significant disclosure. Rotbalt, who subsequently became a founder member of the Pugwash Conference on Science and World Affairs and remained as its general secretary for 17 years, on the occasion of the 40th anniversary of the atomic bombing, revealed the real reasons for his quitting the Manhattan Project:

In March 1944 I experienced a disagreeable shock. At that time I was living with the Chadwicks....General Leslie Groves, when visiting Los

Alamos, frequently came to the Chadwicks for dinner and [a] relaxed palaver. During one such conversation **Groves said that, of course, the real purpose in making the bomb was to subdue the Soviets. (Whatever his exact words, his real meaning was clear)....** Remember, this was said at a time when thousands of Russians were dying every day on the Eastern Front, tying down the Germans and giving the Allies time to prepare for the landing on the continent of Europe. Until then I had thought that our work was to prevent a Nazi victory, and now I was told that the weapon we were preparing was intended for use against the people who were making extreme sacrifices for that very aim.

**My concern about the purpose of our work gained substance from conversations with Niels Bohr....**Sometimes Bohr stayed on and talked to me about the social and political implications of the discovery of nuclear energy and of his worry about the dire consequences of a nuclear arms race between East and West which he foresaw.

All this, and the growing evidence that the war in Europe would be over before the bomb project was completed, made my participation in it pointless....

**When it became evident, toward the end of 1944, that the Germans had abandoned their bomb project, the whole purpose of my being in Los Alamos ceased to be, and I asked for permission to leave and return to Britain.<sup>18</sup> (*emphasis added*)**

But, of course, before returning to Britain Rotbalt had to first clear the charge that he was a spy and then give an undertaking not to disclose to anyone the reasons for his leaving the atomic bomb project! Many scientists working on the project were under similar moral pressure. Leo Szilard, whose initiative had set in motion the construction of the atomic bomb, later said:

During 1943 and part of 1944, our greatest worry was the possibility that Germany would perfect an atomic bomb....In 1945, when we ceased worrying about what the Germans might do to us, we began to worry about what the government of the United States might do to other countries.<sup>19</sup>

Rotbalt's and Szilard's fears were not unfounded. For according to Margaret Gowing:

**The bomb had become inevitably not so much a defensive, but an offensive project.<sup>20</sup>**

### 3.12 REVERSAL OF SITUATION

In July 1939, Szilard had sought the help of Einstein to persuade the U.S. Administration to construct an atomic bomb as a counter to an identical programme that, it was then suspected, Nazi Germany had embarked upon. But nearly six years later, in March, 1945, Szilard again approached Einstein, this time with a request that he should use his influence to prevent the United States, which was on the threshold of acquiring atomic weapons, from holding out threats to other countries. Einstein once again concurred with Szilard's apprehension and accordingly sent another letter to President Roosevelt. But neither Einstein's final letter nor Szilard's opinion against employment of the atom bomb on Japan ever came to the notice of the President. Both the letters were still on his desk, untouched, when suddenly on April 12, 1945, Roosevelt passed away.

Following Roosevelt's demise, Szilard tried desperately to meet the new President, Harry Truman. But all his attempts proved futile until finally he was told to contact James Byrnes, a close associate of the President. Thus, Szilard along with two of his senior colleagues, Dr Walter Bartky and Dr Harold Urey, met Byrnes on May 28, 1945. They soon found out that Byrnes had no sympathies with their arguments. According to Szilard:

Byrnes did not argue that it was necessary to use the bomb against the cities of Japan in order to win the war....Mr Byrnes's...view [was] that our possessing and demonstrating the bomb would make Russia more manageable.<sup>21</sup>

After failing to evoke any favourable response from Byrnes, Szilard decided to undertake a campaign among the scientists.

Meanwhile, Niels Bohr was still hopeful of bringing the decision makers around to his point of view. In March 1945, while in London, he met Sir John Anderson again, who was as much in agreement with Bohr as ever. But they recognised that any action would have to originate from the United States. However, from Margaret Gowing's report it is evident that there was a strong opinion in Britain itself against the use of the atom bomb. The report, among other things, states:

Sir Henry [Henry Dale - the then President of the British Royal Society] has told the author that when he wrote to the Prime Minister [in May 1944] that it might be in his and President Roosevelt's power 'even in the next six months to take decisions which [would] determine the future course of history', he was thinking specifically of a voluntary abstention from dropping the atomic bomb in the interests of future international control. Sir Henry has added that if the Churchill-Bohr interview had not ended so disastrously he himself would have wished to approach the Prime Minister about the use of the bomb and that meanwhile Sir John Anderson and Lord Cherwell were well informed of his opposition to the use of the bomb. Sir James Chadwick [discoverer of the neutron and leader of the British team on the Manhattan Project] remembers that in conversation Sir John Anderson expressed deep concern about the use of the bomb and that Lord Halifax, in spite of all military arguments, was most reluctant to see the bomb used without a clear warning.<sup>22</sup>

After returning to the U.S. in early April 1945, Bohr began the preparation of a new memorandum to the U.S. President. However, due to Roosevelt's sudden demise, Bohr was advised to hand the memorandum over to Dr Vennevar Bush. Dr Bush, who strongly endorsed Bohr's views, forwarded the memorandum to the U.S. Secretary of War, Henry Stimson, on April 25, 1945, along with a request for setting up an advisory committee to examine the whole matter.<sup>23</sup>

### **3.13 THE INTERIM COMMITTEE**

Stimson on his own had been urging the setting up of a committee of experts to advise the new president on these questions. Thus, as already mentioned, on May 4, 1945, an advisory body called the Interim Committee was set up with Henry Stimson as its chairperson. At its first informal meeting, on May 9, 1945, Dr. Bush, a member of the Committee, supplied the other members with copies of his own and Bohr's memoranda for consideration.

Interestingly when the Interim Committee formally met on May 31, 1945, it discussed only how and not whether the A-bomb should be used. This was despite the fact that the committee was set up precisely to examine the desirability of employing an atomic weapon on Japan. According to Arthur Compton, one of the three members of the Scientific Panel attached to this committee:

throughout the morning's discussion it seemed to be a foregone conclusion that the bomb would be used. It is regarding only the details of the strategy and tactics that differing views were expressed.<sup>24</sup>

Equally surprising was the fact that in the meeting that day, the significance of the Soviet entry into the war against Japan was a factor that was never taken into account. Arthur Compton testified to this:

At the meeting of the Interim Committee which I attended, nothing was said about this matter, but we were all aware of the Russian intention.<sup>25</sup>

**The conscious attempt to side step these issues—(a) whether the A-bomb should be used at all; and (b) the likely effect of the entry of the Soviet Union into the war—makes it quite apparent that the proceedings of the Interim Committee were manoeuvred in such a way as to concern itself only with employing the atom bomb as early as possible irrespective of its military necessity.**

Detailing the decisions of the Interim Committee, Henry Stimson reported that:

On June 1, after its discussion with the Scientific Panel, the Interim Committee unanimously adopted the following recommendations:

1. The bomb should be used against Japan as soon as possible.
2. It should be used on a dual target—that is, a military installation or war plant surrounded by or adjacent to houses and other buildings most susceptible to damage, and
3. It shall be used without prior warning [of the nature of the weapons].<sup>26</sup>

*(One of the members of the Committee, Under Secretary of Navy Ralph A. Bard, who took time to understand its implications, subsequently resigned from his post on July 1, 1945 in protest against the Interim Committee's decision to drop atomic bombs on Japan without a warning)*

According to Dr. Compton, it was Brig. Gen. Leslie Groves, Chief of the Manhattan Project and an invitee to the meeting, who was instrumental in influencing the decisions of the eight-member Committee:

"The meeting on 31 May, which I attended as a member of the Scientific Panel" he says, "was only one of a number of sessions of the Interim Committee.... Already the strategy for the military use of the bomb had been carefully worked out. For shaping this strategy General Groves was primarily responsible."<sup>27</sup>

An atomic scientist who was working in close contact with him [Brig. Gen. Groves] at that time states that **from 1945 on Groves gave the impression of being obsessed by one intense fear, that the war would be finished before his bomb would be.** Accordingly, even after the capitulation of Germany he continued to exhort his collaborators with the incessant slogan: "we must not lose a single day."

--- Robert Jungk (2:119), p.177 (*emphasis added*)

Groves himself bragged about his role in setting the tenor of the Committee's discussion:

"It would not have looked well", Groves explains, "if I had been officially appointed to serve on a committee of civilians. But I was present at all its meetings and I always considered it my duty to recommend that the bomb should be dropped."<sup>28</sup>

Of course, Brig. Gen. Groves was also acting according to the dictates of James Byrnes, President Truman's representative on the Committee, whose views on the matter were identical to his own.

Robert Messer's account reveals that: "Byrnes, particularly, became personally involved in the top-secret planning for the use of the bomb both during and after the war". Furthermore, according to him, at the Interim Committee meeting, Byrnes firstly disagreed "strongly with any proposal that the Russians even be told of the bomb's existence before it was used against Japan....Stimson later officially reported this recommendation to Truman as the Interim Committee's considered judgement. In fact the decision was Byrnes's. As the President's personal representative, he had virtually imposed the recommendation regarding non-disclosure on the other members of the Committee". Thereafter, "...Byrnes proposed, and the Committee accepted, the recommendation that for maximum psychological effect, the atomic bomb be used as soon as it was ready, without warning, against an industrial target surrounded by civilian housing. Truman accepted this recommendation."<sup>29</sup>

The situation was such that Byrnes and Groves had little difficulty in imposing their will on the Interim Committee.

Bohr, who was briefed on the proceedings, was thoroughly disgusted by the decision of the Interim Committee to employ atomic bombs on Japan. Therefore, shortly after the Committee submitted its report to the U.S. President on June 6, 1945, Bohr decided to quit the United States and return home. Although he was the guiding spirit behind the Manhattan Project, he did not think it prudent to stay on to witness the first atomic test scheduled to take place on July 16, 1945—a gesture which is very significant.

### 3.14 THE FRACK REPORT

Contrary to expectations, after the surrender of Nazi Germany on May 8, 1945, work on the Manhattan Project was actually speeded up (*see Section 2 notes 116 and 117*). Thus, at the Los Alamos lab, where the atom bomb was being fabricated, and at the engineering works at Oak Ridge and Hanford where fissile materials were being refined, most scientists were tied down by the pressure of work. However, at the Metallurgical Laboratory (Met Lab) at Chicago, which had carried out much of the research for the Project, pressure had begun to relax and scientists were able to reflect upon the ultimate outcome of their work. Many of them in fact were already contemplating the moral implications of the development and likely use of the atomic bomb, since it had become evident towards the end of 1944, that the atomic threat from the Germans had ceased to be. Now, when the significance of the Interim Committee decisions registered on them, it disturbed them a great deal.

Sensing the defiant mood of the scientists, the University of Chicago appointed a committee to discuss and report in detail upon the "Social and Political Consequences of Atomic Energy". The Committee, with James Franck the former Gottingen professor as its Chairperson, held its first meeting on June 4, 1945 and, within a week, came out with its report. Subsequently known as the Franck Report it was forwarded to the Secretary of War on June 11, 1945. The Franck Report essentially pointed out that:

Nuclear bombs cannot possibly remain a 'secret weapon' at the exclusive disposal of this country for more than a few years. The scientific facts on

which its construction is based are well known to scientists of other countries....

We believe that these considerations make the use of nuclear bombs for an early unannounced attack against Japan inadvisable. If the United States were to be the first to release this new means of indiscriminate destruction upon mankind, she would sacrifice public support throughout the world, precipitate the race for armaments and prejudice the possibility of reaching an international agreement on the future control of such weapons.

The Franck Report represented more or less the overwhelmingly dominant view that then prevailed at the Met Lab. Acknowledging this, the editors of the *Bulletin of the Atomic Scientists*, while reproducing the report in the *Bulletin* on May 1, 1946, commented that:

The report was agreed upon unanimously by the seven scientists on the Committee. It undoubtedly expressed the opinion of a considerable group of scientists at the Project.

Nearly a month after the submission of the Franck Report, when no response was forthcoming from the authorities, more and more scientists began to raise their voice against the indifferent attitude. Szilard, who was a member of the committee that prepared the report, went a step further and began collecting signatures in support of the report from scientists in Chicago, Oak Ridge, Hanford and Los Alamos. However, Szilard was forced to abandon the move mid-way. According to Alice Kimbell Smith, Assistant Editor of the *Bulletin of the Atomic Scientists* in its formative years, Szilard's efforts were abandoned:

not because of a lack of interest or support, but it was made clear to the Committee [by the authorities] that the Report was classified and could not be circulated [even in the laboratories].<sup>30</sup>

Describing this incident in greater detail, Robert Jungk said:

When a copy of the petition came into the hands of the Director of the Oak Ridge Laboratory he at once informed Groves of the movement. It would have been difficult for the General to forbid the men on research to sign the document. He, therefore, hit on a different method of stopping its further circulation. He had Szilard's petition declared 'secret'. It was the law that secret papers could only be taken from one place to another under military guard. Thus, all Groves had to do was to decree:



'Unfortunately, we cannot spare any troops for the protection of this document. Until we can do so it must be kept locked up'."<sup>31</sup>

Dr Szilard, however, was not easily discouraged. He drew up a petition, addressed to President Truman, stating the case against the military use of the bomb on humanitarian and moral grounds. Signed by 69 scientists, the petition was forwarded to Washington by Dr Compton on July 17, 1945.<sup>32</sup> It is unlikely that the petition ever came to the notice of President Truman for he was away in Potsdam at that time and did not return until after the bombing of Hiroshima.

Whether the Franck Report itself was ever seriously evaluated by the concerned authorities is not at all clear. If they ever did, the reason advanced to reject it has still not been disclosed.

### 3.15 MET LAB POLL

The number of petitions and counter petitions for and against the atomic bombing was supposed to have placed the authorities at the Manhattan Project in a quandary. According to Arthur Compton:

It was difficult from such petitions to get a balanced view of how our men were thinking. General Groves accordingly suggested that I supervise an opinion poll among those who knew what was going on.<sup>33</sup>

Alice Kimbell Smith has given a slightly different version of the developments there. She says that the poll was necessitated because:

Dr Compton was deeply troubled about the extent to which opinion at the Chicago Laboratory appeared to run counter to the decision to use the bomb.<sup>34</sup>

The poll which was held on July 12, 1945, provides a classic example of the way in which opinion is often surreptitiously manipulated. The most complete account of this poll is found in the article written for the *Bulletin of the Atomic Scientists* by Dr Arthur Compton and Dr Farrington Daniels. The most relevant portion of the article ran as follows:

Four days before the first experimental test in New Mexico, A.H. Compton asked Farrington Daniels, as Director of the Metallurgical Laboratory, to

take an opinion poll regarding the use of the bomb. The scientists working in their laboratories at Chicago were asked one at a time to vote in this poll by secret ballot without previous discussion. The poll was entirely voluntary and informal. It read as follows:

Which of the following five procedures comes closest to your choice as to the way in which any new weapons that we may develop should be used in the Japanese war:

1. Use them in a manner that is from the military point of view most effective in bringing about prompt Japanese surrender at minimum human cost to our armed forces.
2. Give a military demonstration in Japan to be followed by renewed opportunity for surrender before full use of the weapon is employed.
3. Give an experimental demonstration in this country, with representatives of Japan present; followed by a new opportunity for surrender before full use of the weapon is employed.
4. Withhold military use of the weapons, but make public experimental demonstration of their effectiveness.
5. Maintain as secret as possible all developments of our new weapons and refrain from using them in this war.

After reading the questions, each of the scientists placed a number in an envelope expressing his opinion. The poll did not reach everyone, but all those who were approached voted, and the number comprised more than half of the scientists. The scientists were physicists, chemists, biologists, and metallurgists who had received an academic degree. The result was as follows:

Procedure indicated above	1	2	3	4	5
Number voting	23	69	39	16	3
Per cent of votes	15	46	26	11	2

These five procedures were undoubtedly interpreted differently by different scientists, as they undoubtedly will be by present readers, but no definition or amplification of these procedures was made at the time of the poll.<sup>35</sup>

*(The poll was entirely voluntary and informal and covered about 150 of the 250 scientists then on the Project at Chicago)*

According to Dr Compton's own admission, the results of the poll showed that only "15 per cent favoured full military use of the bomb," where as "46 per cent favoured its limited use, 26 per

cent wanted an experimental demonstration before military use, and 13 per cent preferred to avoid any military use whatever."<sup>36</sup>

Dr Compton, however, interpreted the results as showing strong support among the scientists for the official policy:

"There were a few," he said, "who preferred not to use the bomb at all, but 87 per cent voted for its military use, at least if after other means were tried this was found necessary to bring surrender."

He further added:

My experience with this questionnaire has confirmed my faith in the reliability of democratic processes in judging matters of human concern.<sup>37</sup>

Attestation of such faith in its reliability tends to give the impression that the process adopted for the conduct of the poll was really democratic. But the truth is it was hardly so. From Dr Compton's account above, it is evident that the scientists were made **"to vote in this poll by secret ballot without previous discussion."** Moreover, according to him, **"these five procedures were undoubtedly interpreted differently by different scientists ...but no definition or amplification of these procedures was made at the time of the poll."**(see Section 3 note 35)

After truncating the essence of the poll with such stipulations, was it not unbecoming of Dr Compton to make tall claims regarding the democratic nature of the preferences expressed by the scientists? Subsequently, while commenting on the poll, Alice Kimbell Smith could not but admit that doubts had been expressed regarding the fairness of its conduct. She says:

Those who doubted that the poll accurately reflected the opinion at the Met Lab thought that the phrasing of the questions was confusing and that insufficient time had been allowed for consideration of their meaning before answering.<sup>38</sup>

That was it: without either adequate information or previous discussion regarding the options placed before them, the scientists were made to sit in judgement over matters of vital human concern! Some way to elicit democratic opinion indeed! Dr Robert Oppenheimer himself testified that the scientists of the Manhattan Project had absolutely no idea of the exact situation

on the war front in the Far-East and whether other means were available for ending the war. He said:

**We did not know beans about the military situation in Japan. We did not know whether they could be caused to surrender by other means or whether the invasion was really inevitable.**<sup>39</sup>

Most of the scientists had no access to the Franck Report either. Under these circumstances, adoption of such questionable procedures leave little doubt that the poll was designed to hoodwink the scientists. If the overwhelming majority of scientists had sided with the Administration, as Dr. Compton tried to imply, then there would have been no need for the Administration to conduct any such opinion poll. On the other hand, there are enough grounds to believe that it was precisely because of the pressure exerted by the widespread resentment against the official decision to use the bomb, that the authorities were forced to make it appear that all the scientists were being given an equal opportunity to express their considered views on the matter. Thus, the idea of infusing a false sense of participation in the decision-making process can only be seen as a tactic to quell the rising opposition against the use of atomic bombs.

### 3.16 RETROSPECTION

The gross misrepresentation of their position was a sure sign of betrayal by the political leadership of the trust reposed by the scientists in them. The reaction among the scientists on the Manhattan Project is exemplified by **Prof. Niels Bohr's** anguish. In a comprehensive statement published in the *Times* (London), shortly after the atomic bombing, Bohr **declared that every scientist who had worked on the bomb must now be "prepared to assist in any way open to him, in bringing about an outcome of the present crisis of humanity that is worthy of the ideals for which science through the ages has stood."**<sup>40</sup>

Dr Robert Oppenheimer, another key figure behind the construction of the atom bomb, also had grave misgivings regarding the decision to employ such weapons. This annoyed President Truman, who derided the scientist for being a "cry

baby". In a letter to Dean Acheson on May 7, 1946, Truman, referring to the trauma that Dr Oppenheimer was then undergoing, said: "He came to my office five or six months ago and spent most of the time wringing his hands and telling me they had blood on them..."<sup>41</sup>

Subsequently, in an article in the *Bulletin of the Atomic Scientists* Dr Oppenheimer observed that:

**...in the last war, the two nations which we like to think are the most enlightened and humane in the world—Great Britain and the United States—used atomic weapons against an enemy which was essentially defeated.**<sup>42</sup>

Similarly, many scientists later regretted having placed undue faith in the infallibility of the political leadership. This is evident from what Prof. Rudolf Peierls has disclosed in his autobiography. Recalling the thoughts that later agitated the minds of many a scientist associated with the Manhattan Project, Prof. Peierls, a Nobel Laureate and Manhattan veteran, said:

We felt the leaders were reasonable and intelligent, and would make responsible decisions. In retrospect it is clear that these views were too optimistic....My regrets are that we did not insist on more dialogue with the military and political leaders, based on full and clear scientific discussions of the consequences of possible course of action.<sup>43</sup>

It is not that the men then at the helm of affairs in the United States and Great Britain—James Byrnes, Harry Truman and Winston Churchill in particular—were oblivious to the consequences. On the contrary, as has already been pointed out, Byrnes had alerted President Truman to the possibility that "the [atom] bomb might well put us [the United States] in a position to dictate our own terms at the end of the war" (see Section 2 note 14). Furthermore, intoxicated by the success of the first atomic test, Churchill "was already seeing himself capable of eliminating all the Russian centres of industry and population". He had also "painted a wonderful picture of himself as a sole possessor of these bombs and capable of dumping them where he wished, thus all powerful and capable of dictating to Stalin" (see Section 2 note 29).

Thus, as events leading to it vividly show, the unleashing of the heinous crime on Hiroshima and Nagasaki resulted from the insatiable desire of the right-wing leaders of the United States and Great Britain for dominating the world. The attempt to implicate the atomic scientists in the crime was, therefore, nothing but a tactic devised to absolve the real culprits of the hideous deed.

## 4

# **HIBAKUSHA AND POST-WAR JAPAN**

Survivors of the atom bombs—the *hibakusha*—have, since the war, constantly called for the elimination of all nuclear weapons. Their conviction is that their own experience imposes on them a duty to warn other people and advise governments never again to use the nuclear bomb. To fulfill this obligation, they resolved to play a leading role in strengthening the world peace movement. However, a real anti-nuclear war organisation in Japan could not be established until 1954. This was because of various reasons.

### **4.1 JAPAN UNDER OCCUPATION**

After the surrender of Japan, U.S. armed forces had occupied Japan. Once the American occupation got under way, the Occupation authorities began to propagate that 'the atom bomb was dropped in order to end the Pacific war'. Accordingly, the idea that the atom bomb damages were 'a sacrifice that Japan simply had to accept' was spread and began to gain currency even among the Japanese. Hence, no matter how painful, the sufferings of the atom bomb victims were viewed as 'strictly their own responsibility'. Therefore, in the decade after 1945 when the *hibakusha* were badly in need of help, the government gave none—it simply left the victims to fend for themselves.

#### ***Imposition of Censorship:***

For its part, the U.S. authorities stuck to the policy of strict secrecy concerning atom bomb damages. According to the Committee for the Compilation of Materials on Damage Caused by the Atom Bombs in Hiroshima and Nagasaki:

On September 19, 1945, the Occupation authorities issued a press code intended to suppress and play down the full story of the A-bomb damages.<sup>1</sup>

The press code imposed prior censorship on all radio broadcasts and on newspapers and other print media. Therefore, except for a brief period before the press code was imposed, all accounts of atom bomb damages disappeared from newspapers, magazines and academic journals. In the process, the Japanese remained largely ignorant of the extent of atom bomb damages and about the condition of atomic bomb survivors. This lack of awareness also prevented adequate voluntary help being extended to the *hibakusha*.

The *hibakusha* were, therefore, solely dependent on the meagre voluntary help that was forthcoming and on the relief activities they themselves were able to organise. The *hibakusha*, thus, not only underwent the harrowing experience of the bombings but had to further suffer many privations. The authorities who were responsible for this, later came in for severe criticism:

criticism is particularly strong in Hiroshima and Nagasaki toward the government's complete lack of relief efforts during the initial decade when the atom bomb victims and citizens of the two cities were in such great distress.<sup>2</sup>

The attitude of the Occupation authorities towards atom bomb victims was highly deplorable. Yet, inspite of the imposed Occupation taboo on publicising atom bomb damages, efforts by atom bomb victims to record their own experiences in their own words, including denunciation of the atomic bombings, continued throughout the long occupation period. Many of the Japanese scientists studying the effects of the atom bomb were also able to sustain their efforts surreptitiously and collect valuable information.

## 4.2 EARLY PEACE MOVEMENTS IN JAPAN

During the occupation, despite all the limitations, scores of peace movements sprang up all over Japan and many *hibakusha* became particularly active in these. But it was not only in Japan that peace movements had sprouted. Fearing that escalation of

the Cold War could lead to an outbreak of a third world war, people in countries throughout the world were, in fact, at that time actively engaged in organising such movements. In order to work out a common perspective, the First World Assembly to Protect the Peace was held simultaneously in Paris and Prague in April 1949. However, "Japanese delegates who tried to attend the World Assembly were prevented from doing so by the Occupation authorities."<sup>3</sup>

Similarly, when the signature campaign in support of the famous "Stockholm Appeal" of May 1950 for a total ban on all nuclear weapons was gaining ground all over Japan, the American authorities intervened to restrain the movement. Not only that, "with the out-break of war in Korea in June 1950...the Occupation GHQ began to suppress peace movements in Japan and carried out its 'Red purge'.<sup>4</sup>

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### A HORRIFYING REVELATION

It has now been revealed that while the American Occupation authorities were busily engaged in suppressing the peace movement in Japan and ill-treating atom bomb victims, they were at the same time clandestinely rehabilitating many Japanese war criminals. The most shocking incident is the case concerning members of **Unit 731, a Japanese army unit, which was engaged in research on germ warfare during 1930-1945 using human beings, including American prisoners of war, as guinea pigs.** According to a report in the U.S. magazine *Newsweek* (April 19, 1982, p.21) during the occupation, **"...U.S. officials granted the Japanese unit members immunity from prosecution as war criminals in exchange for their laboratory records on germ warfare."** \*

*\*(It may be noted that clause 10 of the Potsdam Ultimatum had specifically said that "...stern justice shall be meted out to all war criminals, including those who have visited cruelties upon our prisoners." See Appendix I)*

*For more details see:*

John W.Powell, 'Japan's Germ Warfare: The U.S. Cover-up of a War Crime', *Bulletin of Concerned Asian Scholars*, W.Charlemont, MA (U.S.A.), 12:4, pp.2-15 (1981)

Robert Gomer, John W.Powell and Bert V.A.Roling, 'Japan's Biological Weapons: 1930-1945', *Bulletin of the Atomic Scientists*, Chicago, October, 1981, pp.43-53

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Even so, signature collections continued and unauthorised peace rallies were held in Hiroshima and Nagasaki on August 6 and 9, 1950. Reports of these rallies attracted international attention. However, it was only in 1952, after Japan regained its independence, that a few photographs of the atomic bombing were, for the first time, published even in Japan. Appalled at the gruesomeness of the trail of death and destruction left by the atom bombs, the peace activists in Japan were impelled to redouble their efforts to strengthen the peace movement.

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### **VICTIMS OF HYDROGEN\* BOMB TOO!**

The tragic experiences of the Japanese had not ended with Hiroshima and Nagasaki. Again on March 1, 1954, 23 Japanese fishermen became victims of radioactive fallout from the hydrogen bomb test conducted by the Americans on Bikini Atoll, Marshall Islands. These fishermen, while fishing in the Pacific ocean, were affected when their steam trawler was overtaken by a "snowstorm" out of a clear sky. It was not until two weeks later that the world learned that the storm had been a rain of radioactive ashes. "Bravo", the hydrogen bomb, tested by the Americans on Bikini, at 15 megatons, was **1150** times as powerful as the Hiroshima atomic bomb.

The Japanese fishermen had been far beyond the danger zone determined by the Americans. And yet they had been exposed to its effects some **90** miles away from the point of explosion. They reached their home port on March 14, sick and weak with sufferings they could not account for. One of the fishermen, Aikichi Kuboyama, died after prolonged illness. The others eventually survived the ordeal. The message that Kuboyama, the first known martyr of the hydrogen bomb, gave to the world just before his death was:

"Let me be the last victim of atomic and hydrogen weapons."

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\* **Hydrogen bomb:** a nuclear weapon more powerful than the atomic bomb, that derives its explosive energy from the thermonuclear fusion reaction of hydrogen isotopes.

**Thermonuclear Fusion:** a reaction in which nuclei of lighter atoms when heated to a temperature of several million degrees Celsius join to form nuclei of heavier atoms, as the combination of deuterium atoms to form helium atoms, accompanied by the release of energy.

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### 4.3 THE TURNING POINT

While peace movements upto 1953 were forward looking, they did not become popular mass movements because of the severe restrictions that then prevailed. The turning point came in 1954—the fallout from the hydrogen bomb test conducted by the United States on Bikini Atoll providing the occasion. (*see box above*)

This widely publicised incident shocked the Japanese public (many of whom were largely ignorant of even the actual happenings at Hiroshima and Nagasaki) and it inflamed their sentiments against nuclear weapons. (*Later it became known that a total of 287 people were affected by the fallout: apart from 23 Japanese fishermen, 236 inhabitants of three atolls in the area—of whom 46 died during 1954-66—and 28 American meteorological observers on another nearby island also underwent the ordeal*).<sup>5</sup> The atom bomb victims of Hiroshima and Nagasaki quickly identified with these new victims. Indeed, they came to feel a new responsibility to promote solidarity among all peoples for the sake of world peace. Thus, the fallout from the 1954 Bikini hydrogen bomb test literally kindled a nation-wide peace movement in Japan.

### 4.4 PEACE MOVEMENT SINCE 1954

The peace movement which was, thus, rejuvenated, ultimately led to the formation, in August 1954, of the National Council for an Anti-Nuclear Signature Campaign. This campaign subsequently planned for a world-wide rally against nuclear weapons. As a result, in the following year, the World Conference Against Atomic and Hydrogen Bombs was held in Hiroshima on August 6, 1955, with representatives from 12 countries. The Conference's demand for a ban on nuclear weapons was backed by the signatures of **32,000,000** Japanese people—more than half the registered voters in Japan! The success of this action led to the formation, in September 1955, of the Japan Council Against Atomic and Hydrogen Bombs (*Nihon Gensuikyo*), following which anti-nuclear councils and other organisations sprang up in most cities and towns throughout the nation. *Gensuikyo* soon grew into a powerful organisation.

But, unfortunately *Gensuikyo* split into three separate organisations in 1964 due to political differences within it. The split was undoubtedly a setback for the whole movement. It was only in 1977, just before the first UN Special Session on Disarmament (1978), that the various factions decided to work together again. They agreed to keep their other ideological differences apart so long as they were united on the question of seeking a total ban on all nuclear weapons. Another important issue on their agenda was seeking, for the benefit of atom bomb victims, the enactment of a comprehensive relief law based on state compensation. They were also striving for the return of all materials relating to atom bomb damages confiscated by the U.S. authorities during their occupation of Japan. These materials include photographs, film footage, research findings, etc. *(They have already succeeded in retrieving a part of the confiscated materials).*

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"On 13 October 1971, with the support of Los Angeles chief examiner-coroner Thomas Noguchi, the Japanese-American A-bomb Victims Association, which has held national and regional conferences to press for legislation to provide aid for the victims. Through their efforts, many people have learnt for the first time that American citizens also became A-bomb victims in Hiroshima and Nagasaki, and some have sympathized with their plight."

—Committee for the Compilation of Materials on Damage Caused by the Atomic Bomb in Hiroshima and Nagasaki (1\*) p. 482.

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#### **4.4.1 Factors Hindering Peace Education**

Since 1954, peace education has progressed steadily, although in an haphazard way. But, it has to be noted that:

**The early atom bomb education pioneered in Hiroshima and Nagasaki, as well as the present larger cause of peace education in Japan, have always, except for one brief period [between 1954-55], been sustained almost entirely through private institutions, groups, and leadership, and thus this cause has from its inception until now been in conflict with policies of the government's Ministry of Education.<sup>6</sup>**

Also, outside the government, the conservative forces of Japan who are opposed to the peace movement, have been clamouring for increasing military spending. Thus, the growth of peace education in Japan has not proceeded unimpeded, and has faced opposition from some social and political groupings. In fact, this was very similar to the situation that had prevailed during the Occupation:

...during the Occupation (1945-1952) the A-bomb experiences could not be made a part of the content of public school education. The textbooks authorized during that period by the Japanese Ministry of Education make almost no mention of atomic bomb damages.<sup>7</sup>

But after the Occupation ended and American forces withdrew (except from its Okinawa base), and following the uproar over the 1954 Bikini hydrogen bomb test, peace education took root and started blossoming. Unfortunately, within a couple of years, it encountered hard times:

Eager to expand military capabilities within the framework of the Japan-U.S. Security Treaty, the Conservative government moved against the currents of public peace sentiment by strengthening its position so as to counter movements for peace and democratization....Increased control over authorization of school textbooks by the Ministry of Education was another instance of the centralization of government power over education. As a result of these moves, explanations of the causes of war and of the atom bomb damages largely disappeared from the textbooks.<sup>8</sup>

### ***Shocking Results:***

The cumulative effect of this distortion of history was that:

**Even among children in Hiroshima and Nagasaki, there now [in the 1970s] were more and more children who did not know who dropped the bomb or when, who were not worried about political trends that left the peace constitution increasingly void of substance, who even—some of them—thought that war is 'real cool'...**<sup>9</sup>

As the teachers in these two cities, who were mostly atom bomb survivors, became aware of these realities they were stunned. At the same time, it spurred them on to immediately initiate an 'atom bomb and peace education' campaign which soon spread to the rest of the nation. As a result, the First National Symposium

on Peace Education was held in 1973 and since then such symposia are an annual feature in Japan.

#### 4.4.2 Efforts to Promote Peace Education

To promote this movement a lot of educational materials were produced and disseminated. Their aim was 'to pass on the lessons of Hiroshima and Nagasaki to the next generation and to the rest of humankind and to promote peace education throughout the world'. To complement this task The Japan Peace Education Research Council was founded in 1974. Later, the thirtieth anniversary of the bombings (1975) and the first UN Special Session on Disarmament (1978) became occasions for renewed efforts to convey the truth about these unprecedented experiences to the Japanese people and the rest of the world.

This campaign also led to the publication of the two most important books till date relating to the bombings. They are: 1) the first detailed pictorial account of the atom bomb experience titled "**Hiroshima-Nagasaki: A Pictorial Record of the Atomic Destruction**" (Hiroshima-Nagasaki Publishing Committee, Tokyo, 1978); and 2) the first book containing all available scientific findings on atom bomb damages titled "**Hiroshima and Nagasaki: the Physical, Medical and Social Effects of the Atomic Bombings**" by the Committee For The Compilation Of Materials On Damage Caused By The Atom Bomb In Hiroshima And Nagasaki, (Iwanami Shoten Publishers, Tokyo, 1979). The task of assessing so massive a breakdown accurately, a task that had been hampered for many years, was at last fulfilled!

In other words, it is only in the 1980s, i.e., almost 35 years after the barbaric act, that the world at large was able to get a comprehensive picture of the atomic devastation and its after effects. It is solely due to the firm resolve of the *hibakusha* and the peace loving people of Japan that this became possible. At the same time, it should again be emphasised that the Japanese Government has had no hand in this venture; their only contribution has been to delay these facts from being publicised.

## 4.5 GOVERNMENT'S REACTION

Interestingly, not until 1954 did the Japanese Government adopt any official policies to help atom bomb victims. What prompted this change in attitude was the wave of public protest provoked by the Bikini test which led to the demand that the state assume responsibility for both the atom bomb and hydrogen bomb victims. But the help that was offered by the Government was too meagre and it was made without a proper assessment of the extent of damage that was caused by the bombings. Therefore,

**...the peoples of Hiroshima and Nagasaki as well as their municipal prefectural governments made repeated requests for surveys; but the national government consistently turned down these requests. Finally, in 1965—twenty years after the atomic bombings—the Ministry of Health and Welfare backed by a National Diet decision conducted a survey....This was the first survey of this kind made by the national government. A summary report of this initial survey, issued in 1967, was so far removed from reality that it was roundly condemned by specialists and A-bomb victims' associations alike. Even researchers involved in the survey criticized it....Since then no fully adequate national survey of A-bomb victims has been made, despite repeated demands from the Science Council of Japan.<sup>10</sup>**

Is it not strange that the independent government of a country which was the victim of a nuclear holocaust—and the only country to have experienced such a unique disaster—should be reluctant to reveal the extent of the damages it had suffered to its own people and to the rest of the world?

### 4.5.1 Perpetuating Occupation Policies

In essence, this stance was very akin to the one adopted by U.S. authorities during the Occupation. During the most crucial years, Occupation policies had:

**...imposed strict controls on all Japanese research into atom bomb affairs: under directives issued in late November 1945 by the General Headquarters (GHQ), Japanese scientists could neither undertake studies of atom bomb damages without permission nor could they publish their findings.<sup>11</sup>**

A very important point is that **none of the Japanese governments that came into office since Japan regained its independence in 1952, has ever condemned the use of atomic weapons on Japan.** Also, the Japanese Government has not till today completely lifted censorship on materials relating to atom bomb damages.

During September-October 1945, the Japanese Film Corporation produced a documentary titled "*The Effects of Atomic Bombs on Hiroshima and Nagasaki*". Shortly afterwards, with the imposition of strict controls in late November 1945, the Occupation authorities confiscated the film and prohibited further documentary filming by the Japanese. It was only after strong public pressure that the U.S. Administration in 1968 returned to Japan a 16 mm print of this documentary. But "because of restrictions imposed by the Ministry of Education, however, no one in Japan save a few medical personnel has ever viewed the film in its entirety."<sup>12</sup>

Moreover, in a bid for remilitarisation, the Japanese Government has been revising textbooks to delete from them even references to wars resulting from Japanese aggression. According to an editorial in the *Indian Express*:

...the Japanese authorities quietly asked publishers of history textbooks to minimize or eliminate references to the country's aggressive acts before and during World War II....With typical Japanese efficiency, the expurgation was done and the result was history as the Japanese today would like to believe it was.<sup>13</sup>

The Japanese Government's attitude in this regard, to say the least, is rather perplexing. Is this not a clear indication of the fact that the same right-wing forces which led Japan into the war are still very much in control of the Japanese Government? Otherwise why is the Japanese Government trying to hide its past and the realities of atomic destruction from the rest of humanity? Why are they not actively campaigning against another nuclear war? All those who are seriously concerned about peace and disarmament should ponder over these questions.

## 4.6 OFFICIAL POLICY ON NUCLEAR WEAPONS

In the light of Japan's dreadful experience, what is the Japanese Government's policy on nuclear weapons? Before attempting to spell out that policy, it would be appropriate to touch upon the significant changes that were introduced into the country's Constitution in 1946, following Japan's surrender, and the impact these have had on the policies of successive Japanese governments. The new Peace Constitution of 1946 was enthusiastically received by the overwhelming majority of the Japanese people. They were impressed by the pacifism expressed in its preamble and in Article 9, which in part states:

Aspiring sincerely to an international peace based on justice and order, the Japanese people forever renounce war as a sovereign right of the nation and the threat or use of force as means of settling international disputes. In order to accomplish [this] aim...land, sea, and air forces, as well as other war potential, will never be maintained. The belligerency of the state will not be recognized.

**But, for all practical purposes, right from the beginning the Peace Constitution has been violated both in letter and in spirit.**

When the Korean war broke out in June 1950, the American authorities urged the Japanese Government to establish the Police Reserve Force, the embryo of later paramilitary forces. Similarly, due to strong U.S. pressure, instead of adhering to the spirit of Japan's new constitution and accepting the popular demand for the establishment of the four principles of peace, namely, settlement with all former enemies, neutrality, no military treaty with any country or military bases in Japan of any other country, and no rearmament, at the San Francisco Conference on September 8, 1951, Japan signed the peace treaty only with the United States (and those allied with it).<sup>\*</sup> Furthermore, with the conclusion of the Japan—U.S. Mutual Security Treaty on that same day, Japan was also brought under the U.S. "nuclear umbrella,"<sup>14</sup> thereby, effectively trampling underfoot the four principles of peace.

<sup>\*</sup>( **India** refused to attend the conference in protest against several provisions in the draft peace treaty, which the United States said were non-negotiable. The Soviet Union (and those allied with it) refused to become party to the treaty mainly on two counts: (1) that there was no clause in the treaty opposing the revival of militarism in Japan; and (2) that the treaty permitted the stationing of U.S. troops

on Japanese territory. India later signed a separate treaty with Japan on June 9, 1952, formally ending hostilities, but keeping in abeyance the major political issues)

Not only that, in the summer of 1954 when the anti-nuclear sentiment was on the upswing, the Japanese Diet promulgated the law creating the Self-Defence Forces (SDF). "Self-Defence-Force" was a convenient label for setting up nearly full-fledged units of army, navy and air force. Under strong U.S. pressure, the SDF has steadily expanded and now ranks sixth in the world in terms of military expenditure.<sup>15</sup> When it was noticed that the "defence" expenditure was rising dangerously, public pressure was brought to bear upon the Japanese Government, in 1976, to place a 1 per cent ceiling on the ratio of defence expenditure to gross national product. But now even this ceiling, which in terms of actual expenditure amounts to a phenomenal sum, is not being adhered to. In fact in 1987, the Japanese Government decided to do away with the ceiling,<sup>16</sup> indicating a trend in Japan towards increasing militarisation.

#### **4.6.1 Policy Tailored To Suit U.S. Interests**

Even after Japan regained its independence in 1952, the Ryukyu islands (including Okinawa) remained under U.S. Administration. The United States made no secret of the fact that it intended to openly utilise the island of Okinawa as a cornerstone of its nuclear strategy in the Far East. However, due to incessant public pressure, it was obliged to return the islands to the Japanese in 1971 on the understanding that it would be allowed to maintain its military base there. But the people who wanted a nuclear weapon-free Okinawa, forced the Japanese Government to elicit an undertaking from the United States to that effect.

Simultaneously, the Japanese Diet was persuaded to adopt what is known as the three Non-Nuclear Principles: not to possess, produce or permit the introduction of nuclear weapons into Japan. But, according to Professor Toshiyuki Toyoda of Meiji Gakuin University (Tokyo):

It is, however, not easy to maintain the three principles, especially the third one, because the United States adheres to its policy of neither

confirming nor denying the presence of nuclear warheads on board its naval vessels calling at Japanese ports, or in aircraft landing in Japan.<sup>17</sup>

The United States, of course, does this with the full connivance of the Japanese Government, which on its part makes no attempt to ensure that the U.S. military vessels and aircraft that enter Japanese territories do not violate the non-nuclear principles. **The truth is**, as retired U.S. Rear Admiral Gene Robert La Rocque disclosed before the Joint Congressional Committee's Subcommittee on Atomic Energy on September 10, 1974, **U.S. warships armed with nuclear weapons do not off-load them before entering Japanese ports.** When this fact was made public by Senator Stuart Symington, the U.S. Defence Department refused to make official comment.<sup>18</sup>

The *New York Times* (October 13, 1974) further divulged that the "U.S. has a secret agreement with Japan on transit of nuclear weapons through Japan." But the response of the U.S. State Department to this report too was that it "will neither confirm nor deny its existence".<sup>19</sup> According to yet another report in the *New York Times* (October 27, 1974), "authoritative Japanese sources have revealed that the secret agreement permitting the U.S. to move nuclear arms through Japan was concluded in 1960, and without Japanese text so that it could be denied in Japan, whose people were sensitive to the nuclear weapons issue." The report said the agreement was made between Aichihiro Fujiyama, the then Japanese Foreign Minister and Douglas MacArthur 2nd, the then U.S. Ambassador to Japan.

Seven years after these disclosures, Admiral La Rocque's assertion was again confirmed by Edwin Reischauer, the U.S. Ambassador to Japan from 1961-66. Reischauer acknowledged that Japan permits U.S. warships to carry nuclear weapons in and out of Japan under a 21-year old confidential oral agreement, which does not consider 'transfer' of such weapons as their 'introduction into Japan—an act forbidden under the Japanese post-war constitution.'<sup>20</sup> Thus, there is no denying the fact that Japan is engaged in close co-operation with U.S. nuclear strategy in the Asia-Pacific region.

There are today over 50,000 U.S. troops stationed at about 118 facilities on Japanese territory. Moreover, Japan is also the headquarters of the U.S. Navy's Seventh Fleet, which holds nuclear war plans for the entire western and northern Pacific region. Though the U.S. does not station nuclear warheads there in peace time, its nuclear infrastructure in Japan, comprising at present twenty-eight facilities, is the most extensive in the Pacific. These include, apart from aerial refuelling facilities for U.S. nuclear bombers stationed in Guam and elsewhere, numerous surveillance, training, targetting, planning, communication, and command bases important to U.S. nuclear war plans.<sup>21</sup>

As pointed out by William Arkin, Fellow of the Institute For Policy Studies (Washington D.C.), and Richard Feildhouse, Washington correspondent for the *Observer* (London):

U.S. military commands in Japan cannot be isolated from the overall U.S. posture in the Pacific. The United States need not [openly] violate Japan's non-nuclear policy by putting warheads there: the communications, planning, targeting, and refueling infrastructure firmly links Japan into its nuclear war plans....the extension of the nuclear infrastructure into "nuclear-free" areas demonstrates how secrecy hides nuclear war preparations from the citizenry....The nuclear-related facilities in...Japan and other "non-nuclear" countries are as important as warheads to U.S. plans to fight a nuclear war....**The technical facilities of the nuclear infrastructure do not at first appear to be provocative, but are as deadly as the nuclear arsenal.**<sup>22</sup>(emphasis added)

In contrast to the Government's position, the Japanese peace movement has been vociferously demanding the elimination of all nuclear weapons. In the words of Toshiyuki Toyoda:

The major premise of the movement is that use of nuclear weaponry is illegal under international law; it constitutes a crime against humanity and an international miscarriage of justice. This is precisely the point of repeated U.N. resolutions—1653 (XVI) of November 24, 1961; 33/71 B of December 14, 1978; and 38/73 G of December 15, 1983—**which Japan, to my shame, has voted against or abstained from.**<sup>23</sup> (emphasis added)

**What is shocking is that the Government of Japan, a country which has been a victim of nuclear war, refuses to lend its support**

to the policy of Non-First Use of nuclear weapons. It opposes the elimination of nuclear weapons. In fact it is now eulogising the virtues of nuclear deterrence. Not only that, Japan has taken yet another retrograde step by joining the U.S. "Star Wars" programme!<sup>24</sup> In short, the Japanese Government has tailored its policies on these vital issues to suit the aggressive military policies of the U.S. Administration, totally disregarding the opinion of the overwhelming majority of the Japanese people and their fellow beings elsewhere.

Thus, while paying lip service to the three non-nuclear principles, successive Japanese governments have moved away from the original idea of a nation committed to peace and disarmament to a military-oriented partnership with a major nuclear weapon state, making a mockery of Japan's Peace Constitution.

#### 4.7 THE NEW PROPOSAL

The inherent weakness of the **three** non-nuclear principles, was that there was nothing in these principles which made it obligatory on the Japanese Government to strive for global nuclear disarmament. On the contrary, the three non-nuclear principles served as a convenient screen for the Japanese Government to obscure from the Japanese people its pursuit of pro-nuclear weapon policies.

Noticing the obvious contradiction between the nation's constitutional pacifism on the one hand, and its total opposition to global nuclear disarmament on the other, leading peace activists in Japan brought forward a new proposal. In an appeal issued in June 1984 they proposed the acceptance of **five** non-nuclear principles. In addition to the earlier three non-nuclear principles—not to possess, produce, or permit introduction of nuclear weapons into Japan—they proposed two more: (1) not to allow Japan to be used as a base from which to launch a nuclear attack; and (2) to strive for global nuclear disarmament. Included within the definition of nuclear weapons are the command, control and communication facilities.<sup>25</sup> The simple fact was that the three non-nuclear principles—which did not have a provision

that made it imperative to strive for global nuclear disarmament—was an utterly meaningless policy.

The peace activists realised that Japan's mere abstinence from producing or possessing nuclear weapons is no solution to the problem posed by the growing global nuclear threat. The policy of abstinence had also not prevented the Japanese Government from upholding the nuclear weapon policies of the United States in particular, and in opposing global nuclear disarmament in general.\* Thus, it dawned upon the peace activists that the struggle for global nuclear disarmament will have to form the core of the non-nuclear principles.

*\*(The bewildering official stance of Japan, which is one of the signatories to the Treaty of Non-Proliferation of Nuclear Weapons (NPT), serves as a good example for exposing the utter bankruptcy of the **present** NPT regime)*

#### 4.8 RESPONSE TO THE NEW PROPOSAL

The proposal of the peace activists has so far had no impact on the defence policy of the Japanese Government. On the contrary, nearly forty-five years after the end of World War II, instead of advocating disarmament and development, Japan is again heading in the opposite direction. As an editorial in *The Times of India* has warned:

...not only is Japan arming itself heavily again, it is seeking and is being encouraged to seek an important military role in the Tokyo-Washington alliance's conception of international security. Indeed, Japan's yesterday's-adversary-turned-today's ally, the U.S., is cynically trying to divert Japan's growing economic might into building up military muscle....The strident advocacy by important organisations like the *Keizai Doyuki* (the Japan committee for economic development) of a bigger military role for Japan is bound to recall history even as Japan itself and at least some others would like to forget it. But it must be remembered that those who forget history are condemned to repeat it.<sup>26</sup> (see also Section 4 note 12)

Claiming that the above editorial mislead the Indian public, the Defence Attache at the Japanese Embassy in New Delhi, Col. Yasuyuki Tanigawa, in a rejoinder attempted to refute the charge by advancing several arguments including the following one:

We have three non-nuclear principles: not possessing nuclear weapons, not producing them and not permitting their introduction into Japan. My

government strictly prohibits any arms export. These very basic factors have been regulating—and will continue to regulate—our defence policy. **I would not hesitate to characterise our defence policy as perhaps the most pacifist in the world.**<sup>27</sup> (*emphasis added*)

Indeed, it is very heartening to note that Japan aspires to secure the honour of being that nation, whose defence policy would be considered the "most pacifist"! It is one's fervent wish that Japan, without further delay, would take the initiative in treading on that admirable path. However, the truth is, the Defence Attache's assertion that Japan's defence policy is **already** the "most pacifist" is completely at variance with existing reality.

As mentioned in Sections 4.6 and 4.7, the three non-nuclear principles were adopted to pull the wool over the eyes of the people of Japan and elsewhere regarding the true nature of the Japanese Government's policy on nuclear weapons. Naturally, there was always a deep suspicion that the American security guarantee to Japan (stemming from the U.S.-Japan Security Treaty of 1951) includes a nuclear commitment. But, there was no way to confirm the suspicion because the existence of such a commitment was never acknowledged and never so openly spelled out as is now in a Japanese policy document. In what seems to be a significant departure from its earlier stance, the Japanese Government has not only gone on to admit of the supposedly effective role nuclear weapons have played in Japan's defence, but also makes an open plea for continued nuclear armament. Japan's annual defence report for 1988, which devotes considerable space to the issue of nuclear deterrence and its relevance to Japan's security, says:

**It is a stark fact that deterrence based on a balance of power, including that of nuclear weapons, sustains peace and stability in the world today.**

**The existence of nuclear weapons of colossal destructive power helps deter the exercise of that power or the exercise of a large-scale military force that could develop into a nuclear war.**<sup>28</sup>

The Japanese Government, which adopted the three non-nuclear principles—not to produce, possess, or permit the introduction of nuclear weapons into Japan—presumably because it abhorred nuclear weapons, is now advocating the

relevance of the doctrine of nuclear deterrence! The irony is that the leadership of such a nation considers its defence policy the 'most pacifist'! In sharp contrast, the peace loving sections of the Japanese people, led by the *hibakusha*, have been tirelessly striving to strengthen the peace movement. Thus, there are two clear-cut trends within Japan today: on the one hand there is the pro-nuclear weapon policy pursued by the Government — a government still controlled by the same right-wing forces that led Japan into the Second World War, and on the other, there is the anti-nuclear weapon policy propounded by peace loving Japanese people who are intent on preventing the outbreak of another world war. **We sincerely hope that the peace movement will prevail upon the Japanese Government to correct the serious anomaly in its present policy. It is also hoped that the day will not be far away when the Japanese Government will itself come forward to uphold and propagate the appeal of the *hibakusha*!**

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**APPEAL FROM HIROSHIMA AND NAGASAKI  
FOR A TOTAL BAN AND ELIMINATION OF NUCLEAR WEAPONS**

Forty years have passed since the atomic bombing of Hiroshima and Nagasaki, and end of the Second World War.

In spite of the intense desire of the A-bomb survivors of Hiroshima and Nagasaki and the people of all the world that such tragedies must never be repeated, nuclear weapons over one million times more destructive than the Hiroshima and Nagasaki bombs are now stockpiled, the result of the on-going nuclear arms race.

The use of nuclear weapons will destroy the whole human race and civilization. It is therefore illegal, immoral and a crime against the human community.

Humans must not coexist with nuclear arms.

With effective activities for the prevention of nuclear war now developing throughout the world, the elimination of nuclear weapons, as a common international task, has become most urgent and crucial for the very survival of the whole of humanity.

Along with the survivors and on behalf of those who died and cannot now speak for themselves we appeal from Hiroshima and Nagasaki:

There must never be another Hiroshima anywhere on earth.

There must never be another Nagasaki anywhere on earth.

Now is the time to call for the complete prohibition and elimination of nuclear weapons. Let us work together urgently to achieve a total ban on the use, testing, research, development, production, deployment and stockpiling of nuclear weapons.

February 6 and 9, 1985

Hiroshima and Nagasaki

*(This **Appeal** was signed by all representatives who participated in the 'Consultative Meeting for the Proposal and Promotion of the Signature Campaign for a Total Ban and Elimination of Nuclear Weapons', and addressed to all peoples of the world from the 'Liaison Committee for the Promotion of the Signature Campaign', c/o GENSUIKYO, Tokyo, Japan)*

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## POSTSCRIPT

### Implications for Humankind

The tragic fate of the two Japanese cities—Hiroshima and Nagasaki—are grim reminders of the awesome destructive power of nuclear weapons. Yet, the bitter truth is that the gruesome event only served as a precursor to an extremely virulent nuclear arms race which followed in its wake. As a result, to humanity's utter dismay, the stockpile of nuclear weapons have steadily mounted from a handful in the 1940s to over **55,000** today. The explosive power of this arsenal is equivalent to nearly **20,000** megaton TNT or over **1,600,000** Hiroshima type atom bombs. **The reality is that in the last forty-five years while the human population has just about doubled, the captive explosive power—as compared to the amount of such power expended during the entire period of the Second World War (1939-1945)—has increased over 5000 times.\*** Such phenomenal quantitative and qualitative expansion of these destructive forces has driven the world to the verge of extinction, because the technological and structural nature of the nuclear arsenals make a nuclear holocaust — triggered by accident or design—a real possibility. Recent scientific studies have further shown that the use of even a fraction of these weapons could end almost all life on Earth due to the adverse effects such a war will have on the environment. According to one estimate the existing explosive capacity is enough to destroy our planet at least **50** times over.\*\* Thus, even in the extremely short span of the nuclear weapon age, humankind—having been pushed to the brink of an impending doom—finds itself entirely at the mercy of a tiny section of vested interests in certain quarters of the world who commend and command nuclear weapons.

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\* **World Health Organization, *Effects Of Nuclear War On Health And Health Services*, Geneva, 1983, p.7**

\*\* **United Nations, *Nuclear Arms: Threat To Our World*, Department of Public Information, New York, 1982**

It would be appropriate to recall that it was the common threat of an Axis triumph which brought about the wartime unity of the Anglo-American powers and the Soviet Union. On January 1, 1942, representatives of **26** nations at war with the Axis powers met in Washington D.C. to sign the Declaration of the United Nations setting forth the war aims of the Allied powers. As the prospects of an Allied victory improved by the middle of 1943, the grand alliance of the United States, Great Britain, the Soviet Union, and other Allied nations faced the task of continuing to act together as a fighting force against the Axis powers led by Germany, Italy, and Japan, and of drawing up plans for reorganising the world. This realisation led to a series of important meetings.

The first wartime ministerial meeting of the three major Allied powers was the Moscow Conference of Foreign Ministers in October 1943, attended by Cordell Hull, Antony Eden and Vyasheslav Molotov representing the U.S.A., Great Britain and the U.S.S.R respectively. Shortly afterwards, the first summit meeting of the "Big Three" took place in Teheran from November 28 to December 1, 1943. It was at this conference that President Roosevelt outlined to Prime Minister Churchill and Secretary General Stalin his draft plan for a United Nations Organisation designed to prevent aggression and war.

The frank and amicable discussions at Teheran, especially between Roosevelt and Stalin, strengthened the basis of mutual trust and goodwill. *(It may be noted that although Churchill signed the Teheran Declaration, he was staunchly opposed to ending colonialism. His stand was that he had not become the King's first minister in order to preside over the liquidation of the British empire).* Subsequently, their representatives met to discuss the details of the proposal at the Dumbarton Oaks Conference (Washington D.C.) between August 21 and October 7, 1944. Finally, on April 25, 1945, delegates from **46** nations at war with the Axis powers gathered at the San Francisco Conference to draw up the United Nations Charter. The UN Charter was signed by all the participating countries on June 26, 1945. Its ratification by the United States Senate on July 28, 1945, made the United States the first to join the UN.

Hopes for the immediate success of the UN ran high, but the exuberant optimism that prevailed during the San Francisco Conference was dampened by the changing political scene within the United States. The new right-wing leadership in Washington, led by President Harry Truman and Secretary of State James Byrnes, soon demonstrated what scant respect they had for the United Nations Charter. As it turned out, the United States, which became the first nation to join the newly-formed world body, also became the very first nation to blatantly violate the basic aim enshrined in the UN Charter namely, "to save succeeding generations from the scourge of war." **Within nine days of joining the United Nations Organisation, the United States carried out its atomic attack on Japan—a nation on the verge of surrender.** This mindless act was a shattering blow to the high expectations of all war-weary peoples of a peaceful post-war world held out by the formation of the United Nations Organisation.

In the final analysis, it was the attempt of the right-wing leadership of the United States to dictate terms to the rest of the world, by demonstrating the power of the latest weapon in its armoury, which ultimately gave rise to the alarming situation obtaining today. As is quite apparent, the flaunting of the strategy of nuclear deterrence has had grave implications for the future of humankind. **In the face of the looming threat, the rest of humanity—all those who deeply treasure the right to life—do not seem to have any option other than to ceaselessly campaign for a world free of nuclear weapons and all other weapons of mass destruction in order to assert control over their own destiny.** It is imperative, therefore, that concerted attempts be made by all concerned to strengthen the United Nations Organisation in order to enable it to advance towards its cherished goals and fully serve the purpose for which it was designed.

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It is supposedly for safeguarding world peace that the Government of Japan is upholding the doctrine of nuclear deterrence. But, is nuclear deterrence really necessary for sustaining peace and stability in the world? How relevant is this

doctrine? How is it that this doctrine has come to play such a dominant role in moulding the "defence" policies of certain powerful nations today? Will the substitution of nuclear weapons with space or "star war" weapons reduce or enhance the threat to world peace? Is disarmament a feasible proposition at all?

To answer these queries, it is necessary to analyse the complexities of the arms race since the end of World War II and to understand the various dimensions of what it holds in store for the world at present. It is equally important to examine the role of the movement for disarmament and development and its likely impact in shaping the society of the future. Such an endeavour, it is hoped, would help generate a more enlightened opinion and, thereby, contribute to planning the most appropriate action for building a more peaceful and livable world.

Meanwhile, there has been some notable progress on the disarmament front. The Intermediate-Range Nuclear Forces (INF) Treaty was signed in Washington on December 8, 1987, between the United States and the Soviet Union. The bilateral agreement to eliminate Intermediate-Range (1000-5500 kms) and Short-Range (500-1000 kms) land-based nuclear missiles from Europe and the subsequent move by the two sides to reduce strategic nuclear weapons (reportedly to half the existing stockpile) are indeed significant steps and are wholly welcome. **While the first genuine arms reduction measures are noteworthy, and will hopefully be complied by both parties, it should by no means blind anyone to the fact that the magnitude of the potential threat emanating from nuclear weapons will continue to be quite staggering: instead of a capacity to wreck the world 50 times over, what is left of the stockpile after the expected reductions will still be sufficient to wipe out humanity no less than 25 times. Moreover, the desperate attempt to replace nuclear weapons with "star-war" weapons would only mean that one set of deadly weapon system (which may ultimately be caricatured as "obsolete") will be substituted by yet another, even more potentially deadly weapon system.** Thus, it would be a dangerous delusion to believe that these arms reduction measures, important as they are, could by themselves have drastically

diminished the impending threat to world peace. On the other hand, such partial, but well publicised measures, become a convenient screen to obscure from the world's public the ferocity of the on-going arms race, which is being waged on a much more sophisticated and extravagant scale than ever before. As already mentioned, the details of these intrigues are not within the scope of the present book. This is only to sound a warning to all concerned not to relax during this period in which international tensions have seemingly subsided, but to remain vigilant and committed to relentlessly intensifying the peace movement with a view to attracting more and more adherents to the cause while striving to surmount the innumerable hurdles still in the way of universal peace.

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**"The general public, and even many men in position of authority, have not realized what would be involved in a war with nuclear bombs.**

**...but the best authorities are unanimous in saying that a war with H-bombs might quite possibly put an end to the human race. It is feared that if many H-bombs are used there will be universal death - sudden only for a minority but for the majority a slow torture of disease and disintegration....**

**...any agreement between East and West is to the good insofar as it tends to diminish tension....We should, therefore, welcome such an agreement, though only as a first step....**

**There lies before us, if we choose, continual progress in happiness, knowledge, and wisdom. Shall we, instead, choose death, because we cannot forget our quarrels? We appeal, as human beings, to human beings: remember your humanity, and forget the rest. If you can do so, the way lies open to a new paradise; if you cannot, there lies before you the risk of universal death."**

**--- Bertrand Russell, Albert Einstein,\* Max Born,  
Frederic Joliot-Curie, Joseph Rotbalt, Linus Pouling  
Hideki Yukawa, P.W. Bridgman, H.J. Muller, L. Infeld**

July 9, 1955

## APPENDIX I

### THE POTSDAM PROCLAMATION\* BY THE HEADS OF GOVERNMENT UNITED STATES, CHINA AND THE UNITED KINGDOM

- 1) We, the President of the United States, the President of the National Government of the Republic of China and the Prime Minister of Great Britain, representing the hundreds of our countrymen, have conferred and agree that Japan shall be given an opportunity to end this war.
- 2) The prodigious land, sea and air forces of the United states, the British Empire and of China, many times reinforced by their armies and air fleets from the west, are poised to strike the final blows upon Japan. This military power is sustained and inspired by the determination of all the Allied nations to prosecute the war against Japan until she ceases to resist.
- 3) The results of the futile and senseless German resistance to the might of the aroused free people of the world stands forth in awful clarity as an example to the people of Japan. The might that now converges on Japan is immeasurably greater than that which, when applied to the resisting Nazis, necessarily laid waste to the lands, the industry and the method of life of the whole German people. The full applications of our military power, backed by our resolve *will* mean the inevitable and complete destruction of the Japanese armed forces and just as inevitably the utter devastation of the Japanese homeland.
- 4) The time has come for Japan to decide whether she will continue to be controlled by those self-willed militaristic advisers whose unintelligent calculations have brought the Empire of Japan to the threshold of annihilation, or whether she will follow the path of reason.
- 5) Following are our terms. We will not deviate from them. There are no alternatives. We shall brook no delay.
- 6) There must be eliminated for all time the authority and influence of those who have deceived and misled the people of Japan into embarking on world conquest, for we insist that a new order of peace, security and justice will be impossible until irresponsible militarism is driven from the world.

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\* Source: Harry S. Truman (2:14), pp.390-392.

- 7) Until such a new order is established *and* until there is convincing proof that Japan's war-making power is destroyed, points in Japanese territory to be designated by the Allies shall be occupied to secure the achievement of the basic objectives we are here setting forth.
- 8) The terms of the Cairo Declaration shall be carried out and Japanese sovereignty shall be limited to the islands of Honshu, Hokkaido, Kyushu, Shikoku and such other minor islands as we determine.
- 9) The Japanese military forces, after being completely disarmed, shall be permitted to return to their homes with the opportunity to lead peaceful lives.
- 10) We do not intend that the Japanese shall be enslaved as a race or as a nation, but stern justice shall be meted out to all war criminals, including those who have visited cruelties upon our prisoners. The Japanese Government shall remove all obstacles to the revival and strengthening of democratic tendencies among the Japanese people. Freedom of speech, of religion, and of thought, as well as respect for the fundamental human rights shall be established.
- 11) Japan shall be permitted to maintain such industries as will sustain her economy and permit the exaction of just reparations in kind, but not those industries which would enable her to re-arm for war. To this end, access to as distinguished from control of raw materials shall be permitted. Eventual Japanese participation in world trade relations shall be permitted.
- 12) The occupying forces of the Allies shall be withdrawn from Japan as soon as these objectives have been accomplished and there has been established in accordance with the freely expressed will of the Japanese people a peacefully inclined and responsible government.
- 13) We call upon the Government of Japan to proclaim now the unconditional surrender of all the Japanese armed forces, and to provide proper and adequate assurances of their good faith in action. The alternative for Japan is prompt and utter destruction.

Harry S.Truman  
Winston S.Churchill

Approval of President  
Chiang Kai-shek  
obtained by radio

Potsdam  
July 26, 1945

## APPENDIX II

### INCENDIARY ATTACKS ON JAPANESE SECONDARY CITIES AND TOWNS JUNE-AUGUST 1945\*

Target	Date	Population	Square miles destroyed	Percentage of total area destroyed
Kagoshima	17/6/45	190,250	2.11	44.1
Omuta	"	177,000	0.217	4.1
Hamamatsu	"	165,000	2.44	70.0
Yokkaichi	"	102,000	1.23	60.0
Toyohashi	19/6/45	142,700	1.70	52.0
Fukuoka	"	323,200	1.37	21.5
Shizuoka	"	212,200	2.25	66.0
Okayama	28/6/45	163,560	2.13	63.0
Sasebo	"	206,000	0.97	48.0
Moji	"	139,000	0.302	26.9
Nobeoka	"	79,426	0.52	36.0
Kure	1/7/45	277,00	1.30	40.0
Kumamoto	"	211,000	1.00	20.0
Ube	"	100,600	0.42	23.0
Shimonoseki	"	196,600	0.51	36.0
Takamatsu	3/7/45	111,200	1.40	78.0
Kochi	"	106,650	0.92	48.0
Himeji	"	104,250	1.216	63.3
Tokushima	"	119,600	1.70	74.0
Chiba	6/7/45	92,000	0.86	43.4
Akashi	"	90,000	0.81	57.0
Shimizu	"	68,600	0.71	50.0
Kofu	"	102,400	1.30	65.0
Sendai	9/7/45	233,630	1.22	27.0
Sakai (Osaka)	"	182,150	1.02	44.0
Wakayama	"	195,200	2.10	52.5
Gifu	"	172,340	1.93	74.0
Utsonomiya	12/7/45	87,868	0.94	34.2
Ichinomiya	"	70,800	0.01	0.8
Tsuruga	"	31,350	0.77	68.0
Uwajima	"	52,100	0.14	14.0
Numazu	16/7/45	53,165	1.40	89.5
Oita	"	61,000	0.555	25.2
Kuwana	"	41,850	0.63	77.0
Hiratsuka	"	42,150	1.04	44.2
Fukui	19/7/45	98,000	1.60	84.8
Hitachi	"	82,700	0.88	64.5
Choshi	"	61,200	0.38	33.8
Okazaki	"	84,070	0.65	68.0

\* Source: Maj. Gen. Woodburn Kirby (2:121), Appendix 14, pp.484-485

Target	Date	Population	Square miles destroyed	Percentage of total area destroyed
Matsuyama	26/7/45	66,300	1.22	73.0
Tokoyama	"	38,400	0.47	37.0
Omuta (2nd Attack)	"	177,000	2.05	38.0
Tsu	28/7/45	68,625	0.84	57.0
Aomori	"	100,000	1.06	64.0
Ichinomiya (2nd attack)	"	70,800	0.99	75.0
Uji Yamada	"	52,555	0.36	39.0
Ogaki	"	56,100	0.48	40.0
Uwajima	"	52,100	0.53	52.0
Hachioji	1/8/45	62,280	1.12	80.0
Toyama	"	127,860	1.87	99.5
Nagaoka	"	67,000	1.33	65.5
Mito	"	66,300	1.70	65.0
Saga	5/8/45	50,400	0.02	1.5
Maebashi	"	87,000	1.00	42.5
Nishinomiya-Mikage (Kobe)	"	111,800	2.80	29.6
Imabari	"	60,000	0.73	76.0
Yawata	8/8/45	261,300	1.22	21.0
Fukuyama	"	56,653	0.88	73.3
Kumagaya	14/8/45	49,000	0.27	45.0
Isezaki	"	40,000	0.166	17.0

*Summary:*

Number of cities attacked ..... 58  
Area destroyed ..... 63.75 sq. miles  
Average percentage of urban areas destroyed ..... 51 per cent

[8,014 sorties were flown between June 17 and August 14, 1945, dropping 54,184 tons of incendiaries, while only one of the 19 'B.29' bombers lost was due to enemy action]

From the beginning of March until the middle of June 1945, incendiary raids were made on the five most important industrial cities—Tokyo and its suburbs,\* Yokohama, Nagoya, Osaka and its suburbs,\*\* and Kobe—in which some 7,000 sorties were flown dropping about 48,000 tons of incendiaries. 136 B.29s were lost while **105.5** square miles, of the total target area of **257.2** square miles, were devastated.

(see Woodburn Kirby (2:121), p.162)

\* including Kawasaki

\*\* including Amagasaki and Fuse

## APPENDIX III

### MAJOR CITIES OF JAPAN IN 1940 (with population 100,000 and above)

City	Population	City	Population
1. Tokyo	6,778,804	24. Sakai	182,147
2. Osaka	3,252,340	25. Amagasaki	181,011
3. Nagoya	1,328,084	26. <b>Kokura</b>	<b>173,639</b>
4. <b>Kyoto</b>	<b>1,089,726</b>	27. Gifu	172,340
5. Yokohama	968,091	28. Hamamatsu	166,346
6. Kobe	967,234	29. Otaru	164,282
7. <b>Hiroshima</b>	<b>343,968</b>	30. Okayama	163,552
8. Fukuoka	306,703	31. <b>Niigata</b>	<b>150,903</b>
9. Kawasaki	300,777	32. Toyohashi	142,716
10. Yawata	261,309	33. Moji	138,997
11. <b>Nagasaki</b>	<b>252,630</b>	34. Fuse	134,724
12. Kure	238,195	35. Toyama	127,859
13. Sendai	223,630	36. Omuta	124,266
14. Shizuoka	212,198	37. Tokushima	119,581
15. Sapporo	206,103	38. Matsuyama	117,534
16. Sasebo	205,989	39. Takamatsu	111,207
17. Hakadote	203,862	40. Muroran	107,628
18. Kanazawa	196,297	41. Kochi	106,644
19. Shimonoseki	196,022	42. Himeji	104,259
20. Wakayama	195,203	43. Nishimoniya	103,774
21. Kumamoto	194,139	44. Kofu	102,419
22. Yokosuka	193,358	45. Ube	100,680
23. Kagoshima	190,257		

Source: Census of October 1, 1940, *The Japan Year Book 1943-44*, The Foreign Affairs Association of Japan, Tokyo, November 1943

**NOTE:** Four of the above cities—Sapporo (15), Hakodate (17), Otaru (29) and Muroran (40)—are situated on Hokkaido, the northern-most of the four main islands of Japan. But, because "Hokkaido and northern Honshu...lay outside the range of B.29s operating from the Marianas"\*, those cities within the range of naval bombers and naval guns were later attacked by the American and British fleet, which carried out operations off the southern coast of Japan between July 6 and August 15, 1945. Thus, other than the five cities selected as targets for atomic bombing, effectively the only major city in Japan (with population 100,000 and above) to escape 'conventional' bombing was the city of Kanazawa, which is situated on the northern coast of Honshu.

\* Woodburn Kirby (2:121), p.165

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# NOTES

## 1

### HIROSHIMA - NAGASAKI: A TRAUMATIC EXPERIENCE

- \* This account is based primarily on the report titled ***Hiroshima and Nagasaki: The Physical, Medical and Social Effects of the Atomic Bombings***, by **The Committee for the Compilation of Materials on Damage Caused by the Atom Bombs in Hiroshima and Nagasaki**, (Iwanami Shoten, Publishers, Tokyo, 1979). English Edition: Basic Books INC., Publishers, New York, 1981.
- \*\* Tiny as compared to most of the nuclear weapons of today, some of which are nearly a 1000 times as powerful as the bomb dropped on Hiroshima.

**Nuclear Weapon:** Device designed for purposes of war which releases nuclear energy in an explosive manner. The source of this energy lies in the force, called nuclear force, which operates between the constituents, protons and neutrons, of atomic nuclei.

**Atomic Bomb:** a nuclear weapon whose explosive force comes from a chain reaction based on the nuclear fission of atoms of Uranium 235 or Plutonium 239 with the consequent conversion of part of their mass into energy.

**Nuclear Fission:** the splitting of the nucleus of an heavy atom into nuclei of lighter atoms accompanied by the release of energy.

**Little Boy:** the atomic bomb dropped on Hiroshima was so named. It was 3 meters long and 700 cms wide. Its total weight was 4000 kgs, but the approximate weight of the expended fissile material (substance which releases nuclear energy under suitable conditions) —Uranium 235—was just 700 grams. The bomb's explosive yield was equivalent to 12.5 kiloton TNT\*\*\*

\*\*\* TNT = Trinitrotoluene (high chemical explosive)

1 Kiloton = 1000 tons; 1 ton=1000 kgs; 1000 Kilotons=1 Megaton (MT)

**Fat Man:** name of the atomic bomb dropped on Nagasaki.

Size = 3.5 meters x 1.5 meters; Total weight = 4500 kgs.

Approx. weight of expended fissile material —Plutonium 239 = 1 kg.

Explosive yield = 22 Kiloton TNT.

Evidently, one kilogram of this fissile material generated an instantaneous explosion of a violence equivalent to **22,000,000** times that of an equal amount (1 kg) of 'conventional' high explosives. Another unique feature is that atomic bombs, unlike 'conventional' bombs, also release high quantities of ionizing radiation which can cause serious impairment to biological systems.

## 2

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